

magruder fertilizer

check sample program



STRIVING FOR EXCELLENCE IN ANALYSIS

Method Proficiency For All Labs (Lab Values)

Sample # 170511

Grade 16-1-0

Statistical Summary

Methods: 131

Labs Reporting: 88

Issue Date : 06/30/2017

Method Code	Analyte & Method	# Tests Submitted	# Tests in Robust Calculations	Raw Mean	Raw SD	Assigned Value Robust Mean	IA at Analyte Value	Robust sd	Robust Uncertainty (U)	Robust % RSD	IA %RSD	Average Range (R-bar)	Horwitz %RSD
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	11	11	15.34	0.2894	15.34		0.3240	0.1221	2.11%		0.1315	2.65%
001.99	Ammoniacal Nitrogen, Other (%)	15	14	15.31	0.3999	15.30		0.4231	0.1413	2.77%		0.1361	2.65%
002.20	Nitrate Nitrogen, Jones Modified (%)	1		16.75									
003.10	Water Insoluble Nitrogen, Method I (%)	5	5	1.490	0.4797	1.490		0.4797	0.2681	32.19%		0.0942	3.77%
010.10	Total Nitrogen, Reduced Iron (16%)	1		14.99									
010.11	Total Nitrogen, Modified Comprehensive (16%)	12	11	16.54	0.3576	16.54	0.6832	0.4055	0.1528	2.45%	2.07%	0.0482	2.62%
010.12	Total Nitrogen, Salicylic (16%)	2	2	16.67	0.4207								
010.17	Total Nitrogen, Comprehensive (16%)	1		16.25									
010.60	Total Nitrogen, Combustion (16%)	57	56	16.94	0.1663	16.94	0.6832	0.1643	0.0274	0.97%	2.02%	0.0861	2.61%
010.99	Total Nitrogen, Other (16%)	8	8	16.72	0.4541	16.70	0.6832	0.4714	0.2083	2.82%	2.05%	0.2253	2.62%
020.10	Total Phosphorus as P2O5, Gravimetric Quinolinium ... (%)	7	7	1.178	0.0522	1.182		0.0503	0.0238	4.26%		0.0300	3.90%
020.20	Total Phosphorus as P2O5, Spectrophotometric Molyb... (%)	13	12	1.403	0.3295	1.403		0.3737	0.1348	26.62%		0.0538	3.80%
020.40	Total Phosphorus as P2O5, Automated (%)	4	4	1.321	0.3977	1.321		0.3977	0.2486	30.12%		0.0773	3.84%
020.50	Total Phosphorus as P2O5, ICP (%)	16	15	1.174	0.1235	1.177		0.1260	0.0407	10.70%		0.0202	3.90%
020.99	Total Phosphorus as P2O5, Other (%)	1		1.076									
030.40	Citrate Insoluble Phosphorus as P2O5, Automated, t... (%)	1		0.1600									
040.40	Indirect Available Phosphorus as P2O5, Automated (1%)	1		1.700									
041.10	Direct Available Phosphorus as P2O5, Gravimetric Q... (1%)	5	5	1.088	0.0401	1.088	0.6700	0.0401	0.0224	3.68%	30.80%	0.0285	3.95%
041.11	Direct Available Phosphorus as P2O5, Gravimetric Q... (1%)	2	2	1.045	0.0071								
041.21	Direct Available Phosphorus as P2O5, Spectrophotom... (1%)	3	3	1.147	0.1150	1.147	0.6700	0.1150	0.0830	10.03%	29.22%	0.0267	3.92%
041.40	Direct Available Phosphorus as P2O5, Automated (1%)	2	2	1.350	0.1768								
041.50	Direct Available Phosphorus as P2O5, ICP (1%)	8	7	1.058	0.0507	1.058	0.6700	0.0575	0.0272	5.44%	31.65%	0.0424	3.97%
041.51	Direct Available Phosphorus as P2O5, ICP, Citrate-... (1%)	9	9	1.106	0.1201	1.103	0.6700	0.1290	0.0538	11.70%	30.37%	0.0383	3.94%
041.60	Direct Available Phosphorus as P2O5, Citrate-EDTA ... (1%)	13	12	1.282	0.3049	1.282	0.6700	0.3458	0.1248	26.97%	26.13%	0.0502	3.85%
041.99	Direct Available Phosphorus as P2O5, Other (1%)	7	6	1.018	0.0564	1.027	0.6700	0.0412	0.0210	4.02%	32.63%	0.0517	3.98%
048.40	Water Soluble Phosphorus as P2O5, Automated (%)	1		0.1150									
050.31	Soluble Potassium as K2O, AA (Citrate) (0.0000001%)	1		1.630									
050.51	Soluble Potassium as K2O, ICP (Citrate) (0.0000001%)	2	2	1.700	0.0000								
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) ... (0.0000001%)	7	7	1.757	0.0661	1.757	0.4100	0.0749	0.0354	4.26%	11.67%	0.0921	3.67%
050.60	Soluble Potassium as K2O, Flame Photometric (Oxala... (0.0000001%)	1		1.765									
050.61	Soluble Potassium as K2O, Flame Photometric (Citra... (0.0000001%)	1		1.650									

Method Code	Analyte & Method	# Tests Submitted	# Tests in Robust Calculations	Raw Mean	Raw SD	Assigned Value Robust Mean	IA at Analyte Value	Robust sd	Robust Uncertainty (U)	Robust % RSD	IA %RSD	Average Range (R-bar)	Horwitz %RSD
050.99	Soluble Potassium as K2O, Other (0.0000001%)	10	9	1.680	0.2115	1.724	0.4100	0.1144	0.0477	6.64%	11.89%	0.0394	3.69%
060.00	Water (Free), Vacuum Oven (%)	4	4	0.6312	0.2729	0.6312		0.2729	0.1706	43.23%		0.0600	4.29%
060.30	Water (Free), AFPC No. 2B (105°C oven for 2 hours,... (%)	1		1.285									
060.99	Water (Free), Other (%)	1		1.390									
101.00	Acid Soluble Calcium, AA, inorganic 965.09 (%)	2	2	0.5035	0.0403								
101.03	Acid Soluble Calcium, AA, 965.09, test portion 200... (%)	1		0.5390									
101.30	Acid Soluble Calcium, ICP, test portion inorganic ... (%)	6	6	0.5351	0.1106	0.5162		0.0784	0.0400	15.18%		0.0338	4.42%
101.32	Acid Soluble Calcium, ICP, test portion 2006.03A-C (%)	2	2	0.4559	0.0200								
101.33	Acid Soluble Calcium, ICP, test portion 2006.03A-C... (%)	4	4	0.4939	0.0316	0.4939		0.0316	0.0197	6.39%		0.0195	4.45%
101.99	Acid Soluble Calcium, Other (%)	2	2	0.4700	0.0071								
121.00	Acid Soluble Magnesium, AA, inorganic 965.09 (%)	3	3	0.1978	0.0159	0.1978		0.0159	0.0115	8.06%		0.0070	5.10%
121.03	Acid Soluble Magnesium, AA, 965.09, test portion 2... (%)	1		0.1770									
121.30	Acid Soluble Magnesium, ICP, test portion inorgani... (%)	6	6	0.1973	0.0224	0.1954		0.0208	0.0106	10.67%		0.0035	5.11%
121.32	Acid Soluble Magnesium, ICP, test portion 2006.03A... (%)	2	2	0.3129	0.1904								
121.33	Acid Soluble Magnesium, ICP, test portion 2006.03A... (%)	4	4	0.1975	0.0160	0.1975		0.0160	0.0100	8.09%		0.0034	5.11%
121.99	Acid Soluble Magnesium, Other (%)	3	3	0.1731	0.0127	0.1731		0.0127	0.0092	7.33%		0.0075	5.21%
143.99	Elemental Sulfur, Other (%)	2	2	18.58	0.6682								
145.00	Sulfate Sulfur, HCl soluble, Gravimetric Sulfur - ... (%)	5	5	18.87	0.9526	18.87		0.9526	0.5325	5.05%		0.2680	2.57%
145.99	Sulfate Sulfur, HCl soluble, Other (%)	3	3	18.30	2.023	18.30		2.023	1.460	11.05%		0.3533	2.58%
146.99	Total Sulfur in Liquid, Other (%)	1		19.10									
148.00	Total Sulfur, Combustion (20%)	6	6	19.13	0.7518	19.13	1.0000	0.8525	0.4351	4.46%	2.61%	0.4867	2.57%
148.01	Total Sulfur, Gravimetric - sulfate and elemental... (20	13	13	19.35	0.6089	19.35	1.0000	0.6904	0.2394	3.57%	2.58%	0.3322	2.56%
148.07	Total Sulfur, ICP, test portion as in 2006.03 modi... (20	12	11	19.00	0.8074	19.03	1.0000	0.8235	0.3104	4.33%	2.63%	0.1735	2.57%
148.99	Total Sulfur, Other (20%)	12	11	19.39	2.812	18.89	1.0000	1.277	0.4812	6.76%	2.65%	0.2939	2.57%
149.04	Sulfur - HNO3 soluble, ICP (%)	3	3	18.11	1.542	18.11		1.542	1.113	8.52%		0.0917	2.59%
151.00	Acid Soluble Arsenic , AA, test portion as in 2006... (p	1		0.3700									
151.30	Acid Soluble Arsenic , ICP (ppm)	5	5	1.165	1.463	1.165		1.463	0.8180	125.56%		0.1672	15.63%
151.33	Acid Soluble Arsenic , ICP, 2006.03 modified w/9:3... (	1		0.5210									
151.99	Acid Soluble Arsenic , Other (ppm)	1		49.51									
165.30	Acid Soluble Boron , ICP, test portion in 982.01 (%)	3	3	0.0035	0.0048	0.0035		0.0048	0.0035	139.47%		0.0000	9.39%
165.99	Acid Soluble Boron , Other (%)	5	5	0.0071	0.0103	0.0071		0.0103	0.0058	145.86%		0.0007	8.42%
181.30	Acid Soluble Cadmium , ICP (ppm)	9	8	0.3344	0.1864	0.3344		0.2114	0.0934	63.21%		0.0367	18.86%
181.33	Acid Soluble Cadmium , ICP, 2006.03 modified w/9:3..	2	2	1.139	1.356								
181.34	Acid Soluble Cadmium , ICP, EPA 3050B/6010C (ppm)	2	2	0.5905	0.2524								
181.99	Acid Soluble Cadmium , Other (ppm)	1		0.1250									
190.00	Water Soluble Chlorine, Titrimetric (%)	1		1.120									
191.30	Acid Soluble Chromium , ICP (ppm)	10	10	14.75	6.817	13.26		3.251	1.285	24.52%		0.6340	10.84%
191.33	Acid Soluble Chromium , ICP, 2006.03 modified w/9:... (	4	4	14.47	1.993	14.47		1.993	1.246	13.77%		1.004	10.70%
191.34	Acid Soluble Chromium , ICP, EPA 3050B/6010C (ppn	2	2	12.58	2.015								
191.99	Acid Soluble Chromium , Other (ppm)	2	2	18.54	8.425								
202.30	Acid Soluble Cobalt , ICP (ppm)	8	8	6.948	1.765	6.948		2.002	0.8848	28.82%		0.7141	11.95%
202.32	Acid Soluble Cobalt , ICP, 2006.03 (ppm)	1		8.115									

Method Code	Analyte & Method	# Tests Submitted	# Tests in Robust Calculations	Raw Mean	Raw SD	Assigned Value Robust Mean	IA at Analyte Value	Robust sd	Robust Uncertainty (U)	Robust % RSD	IA %RSD	Average Range (R-bar)	Horwitz %RSD
202.33	Acid Soluble Cobalt , ICP, 2006.03 modified w/9:3 ... (	4	4	8.584	1.460	8.584		1.460	0.9127	17.01%		0.5775	11.57%
202.34	Acid Soluble Cobalt , ICP, EPA 3050B/6010C (ppm)	3	3	5.779	0.3995	5.779		0.3995	0.2883	6.91%		2.004	12.28%
202.99	Acid Soluble Cobalt , Other (ppm)	1		5.350									
221.00	Acid Soluble Copper , AA, inorganic 965.09 (%)	3	3	0.0053	0.0011	0.0053		0.0011	0.0008	21.24%		0.0001	8.80%
221.01	Acid Soluble Copper , AA, organic 965.09 (%)	1		0.0000									
221.03	Acid Soluble Copper , AA, 965.09, test portion 200... (	1		0.0060									
221.30	Acid Soluble Copper , ICP, test portion inorganic ... (% 11	11	10	0.0063	0.0021	0.0061		0.0019	0.0007	30.81%		0.0007	8.63%
221.32	Acid Soluble Copper , ICP, test portion 2006.03A-C (% 2	2	2	0.0103	0.0031								
221.33	Acid Soluble Copper , ICP, test portion 2006.03A-C... (	5	5	10.81	24.16	10.81		24.16	13.51	223.49%		0.4760	2.80%
221.99	Acid Soluble Copper , Other (%)	8	8	0.0052	0.0009	0.0052		0.0010	0.0004	19.14%		0.0006	8.84%
241.00	Acid Soluble Iron, AA, inorganic 965.09 (2%)	11	11	2.497	0.2828	2.500	0.2633	0.2766	0.1042	11.06%	5.26%	0.0484	3.48%
241.01	Acid Soluble Iron, AA, organic 965.09 (2%)	2	2	2.288	0.2652								
241.03	Acid Soluble Iron, AA, 965.09, test portion 2006.0... (2'	1		2.773									
241.20	Acid Soluble Iron , Colormetric (2%)	1		2.270									
241.30	Acid Soluble Iron, ICP, test portion inorganic 965... (2%	17	16	2.587	0.3466	2.652	0.2633	0.1495	0.0467	5.64%	4.96%	0.0869	3.45%
241.31	Acid Soluble Iron, ICP, test portion organic 965.0... (2%	1		2.880									
241.32	Acid Soluble Iron, ICP, test portion 2006.03A-C (2%)	2	2	2.522	0.1673								
241.33	Acid Soluble Iron, ICP, test portion 2006.03A-C, w... (2	13	13	2.632	0.1733	2.644	0.2633	0.1494	0.0518	5.65%	4.98%	0.0543	3.46%
241.99	Acid Soluble Iron, Other (2%)	10	9	2.446	0.4543	2.539	0.2633	0.2530	0.1054	9.96%	5.18%	0.0451	3.48%
251.30	Acid Soluble Lead , ICP (ppm)	6	5	1.925	0.9356	1.925		0.9356	0.5230	48.61%		0.1764	14.50%
251.33	Acid Soluble Lead , ICP, 2006.03 modified w/9:3 HN...	2	2	3.876	2.506								
251.34	Acid Soluble Lead , ICP, EPA 3050B/6010C (ppm)	2	2	1.850	0.5197								
251.99	Acid Soluble Lead , Other (ppm)	3	3	7.983	6.273	7.983		6.273	4.527	78.58%		0.2067	11.70%
261.00	Acid Soluble Manganese , AA, Mn2+ only (%)	1		0.0071									
261.12	Acid Soluble Manganese , AA, inorganic 965.09 (%)	2	2	0.0064	0.0010								
261.15	Acid Soluble Manganese , AA, 965.09, test portion ... (	1		0.0071									
261.30	Acid Soluble Manganese , ICP, test portion 972.02a (% 4	4	4	0.0081	0.0013	0.0081		0.0012	0.0008	15.36%		0.0004	8.25%
261.31	Acid Soluble Manganese , ICP, test portion 972.02b (% 1	1		0.0100									
261.32	Acid Soluble Manganese , ICP, test portion inorgan... (	1		0.0057									
261.34	Acid Soluble Manganese , ICP, test portion 2006.03... 2	2	2	0.0081	0.0015								
261.35	Acid Soluble Manganese , ICP, test portion 2006.03... 3	3	3	0.0073	0.0006	0.0073		0.0006	0.0005	8.55%		0.0003	8.39%
261.99	Acid Soluble Manganese , Other (%)	3	3	0.0081	0.0017	0.0081		0.0017	0.0013	21.63%		0.0000	8.26%
281.30	Acid Soluble Mercury , ICP (ppm)	4	4	0.1050	0.0590	0.1050		0.0590	0.0369	56.21%		0.0125	22.46%
281.99	Acid Soluble Mercury , Other (ppm)	1		0.1500									
289.30	Acid Soluble Molybdenum , ICP (ppm)	6	5	3.796	1.167	3.796		1.167	0.6524	30.75%		0.0804	13.09%
289.33	Acid Soluble Molybdenum , ICP, 2006.03 modified w/.. 3	3	3	3.054	1.090	3.054		1.090	0.7869	35.71%		0.4253	13.52%
289.34	Acid Soluble Molybdenum , ICP, EPA 3050B/6010C (p 3	3	3	3.644	0.7231	3.644		0.7231	0.5218	19.84%		0.9277	13.17%
289.99	Acid Soluble Molybdenum , Other (ppm)	1		3.425									
291.00	Acid Soluble Nickel , AA, test portion as in 2006.... (pp 1	1		17.00									
291.30	Acid Soluble Nickel , ICP (ppm)	10	9	13.45	2.164	13.58		2.155	0.8978	15.87%		0.9557	10.80%
291.33	Acid Soluble Nickel , ICP, 2006.03 modified w/9:3 ... (p 4	4	4	14.78	1.973	14.78		1.973	1.233	13.35%		0.2526	10.67%
291.34	Acid Soluble Nickel , ICP, EPA 3050B/6010C (ppm)	3	3	12.74	0.5763	12.74		0.5763	0.4159	4.52%		4.356	10.91%

Method Code	Analyte & Method	# Tests Submitted	# Tests in Robust Calculations	Raw Mean	Raw SD	Assigned Value Robust Mean	IA at Analyte Value	Robust sd	Robust Uncertainty (U)	Robust % RSD	IA %RSD	Average Range (R-bar)	Horwitz %RSD
291.99	Acid Soluble Nickel , Other (ppm)	2	2	15.66	5.431								
301.30	Acid Soluble Selenium , ICP (ppm)	3	3	3.362	3.805	3.362		3.805	2.746	113.19%		2.483	13.33%
301.33	Acid Soluble Selenium , ICP, 2006.03 modified w/9:...	1		0.9480									
301.99	Acid Soluble Selenium , Other (ppm)	1		0.7600									
311.30	Sodium, Flame Photometric (%)	1		0.1550									
311.32	Sodium, ICP, 2006.03 test portion (%)	1		0.1241									
311.33	Sodium, ICP, 2006.03 modified w/9:3 HNO3:HCl test .	3	3	0.1170	0.0108	0.1170		0.0108	0.0078	9.25%		0.0053	5.52%
311.99	Sodium, Other (%)	4	4	0.1280	0.0105	0.1280		0.0105	0.0065	8.17%		0.0060	5.45%
321.00	Acid Soluble Zinc , AA, inorganic 965.09 (%)	6	6	0.0327	0.0373	0.0243		0.0209	0.0106	85.94%		0.0026	7.00%
321.01	Acid Soluble Zinc , AA, organic 965.09 (%)	1		0.0000									
321.03	Acid Soluble Zinc , AA, 965.09, test portion 2006.... (%)	1		0.0120									
321.30	Acid Soluble Zinc , ICP, test portion inorganic 96...	11	10	0.0117	0.0024	0.0116		0.0025	0.0010	21.30%		0.0007	7.83%
321.32	Acid Soluble Zinc , ICP, test portion 2006.03A-C (%)	2	2	0.0263	0.0158								
321.33	Acid Soluble Zinc , ICP, test portion 2006.03A-C, ... (%)	5	5	0.0118	0.0004	0.0118		0.0004	0.0002	3.07%		0.0008	7.81%
321.99	Acid Soluble Zinc , Other (%)	9	9	0.0121	0.0030	0.0114		0.0012	0.0005	10.31%		0.0005	7.85%
325.30	Water Soluble Zinc , ICP (%)	1		2.480									

magruder fertilizer

check sample program



STRIVING FOR EXCELLENCE IN ANALYSIS

Method Proficiency For All Labs (Lab Values)

Sample # 170511

Grade 16-1-0

Method Precision Report

Issue Date : 06/30/2017

Method Code	Analyte & Method	# Tests Submitted	# Tests Used in Precision Calcs	Mean	SD	Between Labs sL	Within Labs sr	Reproducibility SR	Between Labs %RSD	Within Labs %rsd	Reproducibility %RSD	sR/sr
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	11	11	15.34	0.2894	0.2752	0.1267	0.3030	1.79%	0.83%	1.97%	2.391
001.99	Ammoniacal Nitrogen, Other (%)	15	13	15.34	0.4030	0.3960	0.1055	0.4098	2.58%	0.69%	2.67%	3.883
010.11	Total Nitrogen, Modified Comprehensive (16%)	12	11	16.54	0.3576	0.3563	0.0428	0.3588	2.15%	0.26%	2.17%	8.384
010.60	Total Nitrogen, Combustion (16%)	57	54	16.93	0.1551	0.1449	0.0781	0.1646	0.86%	0.46%	0.97%	2.108
020.20	Total Phosphorus as P2O5, Spectrophotometric MolybdovanadoP (%)	13	11	1.431	0.3307	0.3299	0.0325	0.3315	23.06%	2.27%	23.17%	10.21
020.50	Total Phosphorus as P2O5, ICP (%)	16	14	1.182	0.1236	0.1232	0.0129	0.1239	10.42%	1.09%	10.48%	9.575
041.51	Direct Available Phosphorus as P2O5, ICP, Citrate-EDTA Ext. (1%)	9	9	1.106	0.1201	0.1175	0.0349	0.1226	10.62%	3.16%	11.08%	3.512
041.60	Direct Available Phosphorus as P2O5, Citrate-EDTA Ext. (1%)	13	12	1.282	0.3049	0.3033	0.0439	0.3065	23.66%	3.43%	23.91%	6.979
050.99	Soluble Potassium as K2O, Other (0.0000001%)	10	8	1.745	0.0831	0.0789	0.0368	0.0871	4.52%	2.11%	4.99%	2.368
148.01	Total Sulfur, Gravimetric - sulfate and elemental (20%)	13	12	19.29	0.5949	0.5671	0.2544	0.6215	2.94%	1.32%	3.22%	2.443
148.07	Total Sulfur, ICP, test portion as in 2006.03 modified w/9:3 HNO3:HCl (20%)	12	11	19.00	0.8074	0.8000	0.1537	0.8147	4.21%	0.81%	4.29%	5.302
148.99	Total Sulfur, Other (20%)	12	9	18.55	1.232	1.225	0.1762	1.238	6.60%	0.95%	6.67%	7.025
181.30	Acid Soluble Cadmium , ICP (ppm)	9	8	0.3344	0.1864	0.1842	0.0410	0.1887	55.06%	12.27%	56.41%	4.598
191.30	Acid Soluble Chromium , ICP (ppm)	10	9	12.72	2.438	2.396	0.6414	2.480	18.84%	5.04%	19.50%	3.866
221.30	Acid Soluble Copper , ICP, test portion inorganic 965.09 (%)	11	10	0.0063	0.0021	0.0020	0.0010	0.0022	31.27%	15.98%	35.11%	2.197
241.00	Acid Soluble Iron, AA, inorganic 965.09 (2%)	11	11	2.497	0.2828	0.2813	0.0410	0.2843	11.26%	1.64%	11.38%	6.933
241.30	Acid Soluble Iron, ICP, test portion inorganic 965.09 (2%)	17	14	2.655	0.1195	0.1135	0.0531	0.1253	4.28%	2.00%	4.72%	2.362
241.33	Acid Soluble Iron, ICP, test portion 2006.03A-C, w/dual acid (2%)	13	12	2.667	0.1251	0.1195	0.0527	0.1306	4.48%	1.98%	4.90%	2.476
241.99	Acid Soluble Iron, Other (2%)	10	8	2.587	0.1837	0.1819	0.0364	0.1855	7.03%	1.41%	7.17%	5.090
291.30	Acid Soluble Nickel , ICP (ppm)	10	8	13.98	1.564	1.507	0.5942	1.620	10.78%	4.25%	11.58%	2.726
321.30	Acid Soluble Zinc , ICP, test portion inorganic 965.09 (%)	11	10	0.0117	0.0024	0.0023	0.0009	0.0025	19.83%	7.87%	21.33%	2.712
321.99	Acid Soluble Zinc , Other (%)	9	8	0.0111	0.0009	0.0008	0.0005	0.0009	7.02%	4.23%	8.20%	1.939

Notes: Precision data calculated when 8 or more Tests included.

magruder fertilizer

check sample program



STRIVING FOR EXCELLENCE IN ANALYSIS

Method Proficiency For All Labs (Lab Values)

Methods: 131

Sample # 170511

Lab Values

Labs Reporting: 88

Grade 16-1-0

Issue Date : 06/30/2017

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0532	15.02	0.0200	15.34	0.3240	0.1315	11	-0.93	1%	0
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0231	15.03	0.0000	15.34	0.3240	0.1315	11	-0.90	1%	0
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0230	15.10	0.0000	15.34	0.3240	0.1315	11	-0.70	1%	0
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0456	15.10	0.2000	15.34	0.3240	0.1315	11	-0.70	1%	0
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0090	15.11	0.3000	15.34	0.3240	0.1315	11	-0.67	1%	0
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0486	15.42	0.0800	15.34	0.3240	0.1315	11	0.22	0%	0
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0105	15.45	0.3800	15.34	0.3240	0.1315	11	0.31	0%	0
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0177	15.47	0.0160	15.34	0.3240	0.1315	11	0.38	0%	0
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0531	15.52	0.1900	15.34	0.3240	0.1315	11	0.50	1%	0
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0444	15.72	0.1600	15.34	0.3240	0.1315	11	1.09	1%	0
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0526	15.85	0.1000	15.34	0.3240	0.1315	11	1.47	2%	0
001.99	Ammoniacal Nitrogen, Other (%)	0522	14.90	0.0600	15.30	0.4231	0.1361	14	-0.94	1%	0
001.99	Ammoniacal Nitrogen, Other (%)	0529	14.92	0.0300	15.30	0.4231	0.1361	14	-0.91	1%	0
001.99	Ammoniacal Nitrogen, Other (%)	0420	14.97	0.5300	15.30	0.4231	0.1361	14	-0.79	1%	0
001.99	Ammoniacal Nitrogen, Other (%)	0533	15.04	0.0200	15.30	0.4231	0.1361	14	-0.61	1%	0
001.99	Ammoniacal Nitrogen, Other (%)	0518	15.05	0.3000	15.30	0.4231	0.1361	14	-0.59	1%	0
001.99	Ammoniacal Nitrogen, Other (%)	0535	15.05	0.1000	15.30	0.4231	0.1361	14	-0.59	1%	0
001.99	Ammoniacal Nitrogen, Other (%)	0368	15.10	0.3449	15.30	0.4231	0.1361	14	-0.47	1%	0
001.99	Ammoniacal Nitrogen, Other (%)	0540	15.15	0.1000	15.30	0.4231	0.1361	14	-0.35	0%	0
001.99	Ammoniacal Nitrogen, Other (%)	0200	15.24	0.0200	15.30	0.4231	0.1361	14	-0.14	0%	0
001.99	Ammoniacal Nitrogen, Other (%)	0524	15.59	0.0700	15.30	0.4231	0.1361	14	0.68	1%	0
001.99	Ammoniacal Nitrogen, Other (%)	0493	15.60	0.1000	15.30	0.4231	0.1361	14	0.71	1%	0
001.99	Ammoniacal Nitrogen, Other (%)	0371	15.80	0.2000	15.30	0.4231	0.1361	14	1.18	2%	0
001.99	Ammoniacal Nitrogen, Other (%)	0220	15.86	0.0100	15.30	0.4231	0.1361	14	1.31	2%	0
001.99	Ammoniacal Nitrogen, Other (%)	0096	16.12	0.0200	15.30	0.4231	0.1361	14	1.94	3%	0
001.99	Ammoniacal Nitrogen, Other (%)	0501	16.22	0.7400	15.30	0.4231	0.1361	14	2.18	3%	1
002.20	Nitrate Nitrogen, Jones Modified (%)	0029	16.75	0.0070				1			0
003.10	Water Insoluble Nitrogen, Method I (%)	0029	1.226	0.1210	1.490	0.4797	0.0942	5	-0.55	9%	0
003.10	Water Insoluble Nitrogen, Method I (%)	0356	1.265	0.2100	1.490	0.4797	0.0942	5	-0.47	8%	0
003.10	Water Insoluble Nitrogen, Method I (%)	0105	1.275	0.1300	1.490	0.4797	0.0942	5	-0.45	7%	0
003.10	Water Insoluble Nitrogen, Method I (%)	0220	1.340	0.0000	1.490	0.4797	0.0942	5	-0.31	5%	0
003.10	Water Insoluble Nitrogen, Method I (%)	0230	2.345	0.0100	1.490	0.4797	0.0942	5	1.78	29%	0
010.10	Total Nitrogen, Reduced Iron (16%)	0309	14.99*	0.0300				1			0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
010.11	Total Nitrogen, Modified Comprehensive (16%)	0500	16.07*	0.0000	16.54	0.4055	0.0482	11	-1.16	1%	0
010.11	Total Nitrogen, Modified Comprehensive (16%)	0532	16.08*	0.0800	16.54	0.4055	0.0482	11	-1.14	1%	0
010.11	Total Nitrogen, Modified Comprehensive (16%)	0309	16.13*	0.0200	16.54	0.4055	0.0482	11	-1.01	1%	0
010.11	Total Nitrogen, Modified Comprehensive (16%)	0533	16.33	0.0500	16.54	0.4055	0.0482	11	-0.53	1%	0
010.11	Total Nitrogen, Modified Comprehensive (16%)	0535	16.45	0.1000	16.54	0.4055	0.0482	11	-0.22	0%	0
010.11	Total Nitrogen, Modified Comprehensive (16%)	0540	16.45	0.1000	16.54	0.4055	0.0482	11	-0.22	0%	0
010.11	Total Nitrogen, Modified Comprehensive (16%)	0114	16.83	0.0200	16.54	0.4055	0.0482	11	0.71	1%	0
010.11	Total Nitrogen, Modified Comprehensive (16%)	0105	16.87	0.0400	16.54	0.4055	0.0482	11	0.81	1%	0
010.11	Total Nitrogen, Modified Comprehensive (16%)	0456	16.88	0.0900	16.54	0.4055	0.0482	11	0.83	1%	0
010.11	Total Nitrogen, Modified Comprehensive (16%)	0371	16.90	0.0000	16.54	0.4055	0.0482	11	0.89	1%	0
010.11	Total Nitrogen, Modified Comprehensive (16%)	0220	16.97	0.0300	16.54	0.4055	0.0482	11	1.05	1%	0
010.11	Total Nitrogen, Modified Comprehensive (16%)	0531	1.215*	0.0500	16.54	0.4055	0.0482	11	-37.80	46%	2
010.12	Total Nitrogen, Salicylic (16%)	0185	16.38	0.0100				2			0
010.12	Total Nitrogen, Salicylic (16%)	0416	16.97	0.0200				2			0
010.17	Total Nitrogen, Comprehensive (16%)	0526	16.25	0.1000				1			0
010.60	Total Nitrogen, Combustion (16%)	0368	16.61	0.1260	16.94	0.1643	0.0861	56	-2.02	1%	0
010.60	Total Nitrogen, Combustion (16%)	0055	16.67	0.0400	16.94	0.1643	0.0861	56	-1.64	1%	0
010.60	Total Nitrogen, Combustion (16%)	0041	16.68	0.0500	16.94	0.1643	0.0861	56	-1.61	1%	0
010.60	Total Nitrogen, Combustion (16%)	0070	16.68	0.1900	16.94	0.1643	0.0861	56	-1.61	1%	0
010.60	Total Nitrogen, Combustion (16%)	0444	16.69	0.2200	16.94	0.1643	0.0861	56	-1.52	1%	0
010.60	Total Nitrogen, Combustion (16%)	0292	16.71	0.0100	16.94	0.1643	0.0861	56	-1.42	1%	0
010.60	Total Nitrogen, Combustion (16%)	0525	16.74	0.0370	16.94	0.1643	0.0861	56	-1.21	1%	0
010.60	Total Nitrogen, Combustion (16%)	0521	16.75	0.0000	16.94	0.1643	0.0861	56	-1.16	1%	0
010.60	Total Nitrogen, Combustion (16%)	0356	16.77	0.1200	16.94	0.1643	0.0861	56	-1.03	0%	0
010.60	Total Nitrogen, Combustion (16%)	0035	16.78	0.2700	16.94	0.1643	0.0861	56	-1.00	0%	0
010.60	Total Nitrogen, Combustion (16%)	0234	16.78	0.2500	16.94	0.1643	0.0861	56	-1.00	0%	0
010.60	Total Nitrogen, Combustion (16%)	0157	16.80	0.0000	16.94	0.1643	0.0861	56	-0.85	0%	0
010.60	Total Nitrogen, Combustion (16%)	0095	16.83	0.0500	16.94	0.1643	0.0861	56	-0.69	0%	0
010.60	Total Nitrogen, Combustion (16%)	0072	16.84	0.2000	16.94	0.1643	0.0861	56	-0.60	0%	0
010.60	Total Nitrogen, Combustion (16%)	0131	16.84	0.0300	16.94	0.1643	0.0861	56	-0.59	0%	0
010.60	Total Nitrogen, Combustion (16%)	0037	16.85	0.1490	16.94	0.1643	0.0861	56	-0.55	0%	0
010.60	Total Nitrogen, Combustion (16%)	0043	16.87	0.0000	16.94	0.1643	0.0861	56	-0.42	0%	0
010.60	Total Nitrogen, Combustion (16%)	0096	16.88	0.0100	16.94	0.1643	0.0861	56	-0.39	0%	0
010.60	Total Nitrogen, Combustion (16%)	0377	16.88	0.1900	16.94	0.1643	0.0861	56	-0.39	0%	0
010.60	Total Nitrogen, Combustion (16%)	0086	16.89	0.0790	16.94	0.1643	0.0861	56	-0.30	0%	0
010.60	Total Nitrogen, Combustion (16%)	0018	16.90	0.0000	16.94	0.1643	0.0861	56	-0.24	0%	0
010.60	Total Nitrogen, Combustion (16%)	0042	16.90	0.2000	16.94	0.1643	0.0861	56	-0.24	0%	0
010.60	Total Nitrogen, Combustion (16%)	0482	16.90	0.0000	16.94	0.1643	0.0861	56	-0.24	0%	0
010.60	Total Nitrogen, Combustion (16%)	0233	16.91	0.0000	16.94	0.1643	0.0861	56	-0.18	0%	0
010.60	Total Nitrogen, Combustion (16%)	0472	16.93	0.0200	16.94	0.1643	0.0861	56	-0.06	0%	0
010.60	Total Nitrogen, Combustion (16%)	0231	16.94	0.0300	16.94	0.1643	0.0861	56	-0.03	0%	0
010.60	Total Nitrogen, Combustion (16%)	0291	16.94	0.0100	16.94	0.1643	0.0861	56	-0.03	0%	0
010.60	Total Nitrogen, Combustion (16%)	0354	16.94	0.0390	16.94	0.1643	0.0861	56	0.01	0%	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
010.60	Total Nitrogen, Combustion (16%)	0136	16.95	0.0100	16.94	0.1643	0.0861	56	0.04	0%	0
010.60	Total Nitrogen, Combustion (16%)	0516	16.95	0.1000	16.94	0.1643	0.0861	56	0.07	0%	0
010.60	Total Nitrogen, Combustion (16%)	0494	16.96	0.0300	16.94	0.1643	0.0861	56	0.10	0%	0
010.60	Total Nitrogen, Combustion (16%)	0073	16.96	0.0800	16.94	0.1643	0.0861	56	0.13	0%	0
010.60	Total Nitrogen, Combustion (16%)	0105	16.96	0.0200	16.94	0.1643	0.0861	56	0.13	0%	0
010.60	Total Nitrogen, Combustion (16%)	0421	16.97	0.3300	16.94	0.1643	0.0861	56	0.16	0%	0
010.60	Total Nitrogen, Combustion (16%)	0023	17.00	0.0700	16.94	0.1643	0.0861	56	0.34	0%	0
010.60	Total Nitrogen, Combustion (16%)	0389	17.00	0.2100	16.94	0.1643	0.0861	56	0.34	0%	0
010.60	Total Nitrogen, Combustion (16%)	0040	17.00	0.2000	16.94	0.1643	0.0861	56	0.37	0%	0
010.60	Total Nitrogen, Combustion (16%)	0049	17.00	0.0400	16.94	0.1643	0.0861	56	0.37	0%	0
010.60	Total Nitrogen, Combustion (16%)	0501	17.02	0.1100	16.94	0.1643	0.0861	56	0.46	0%	0
010.60	Total Nitrogen, Combustion (16%)	0325	17.05	0.1000	16.94	0.1643	0.0861	56	0.67	0%	0
010.60	Total Nitrogen, Combustion (16%)	0457	17.05	0.1000	16.94	0.1643	0.0861	56	0.67	0%	0
010.60	Total Nitrogen, Combustion (16%)	0029	17.06	0.0500	16.94	0.1643	0.0861	56	0.71	0%	0
010.60	Total Nitrogen, Combustion (16%)	0360	17.06	0.0500	16.94	0.1643	0.0861	56	0.71	0%	0
010.60	Total Nitrogen, Combustion (16%)	0177	17.07	0.1200	16.94	0.1643	0.0861	56	0.80	0%	0
010.60	Total Nitrogen, Combustion (16%)	0451	17.07	0.1600	16.94	0.1643	0.0861	56	0.80	0%	0
010.60	Total Nitrogen, Combustion (16%)	0486	17.07	0.0000	16.94	0.1643	0.0861	56	0.80	0%	0
010.60	Total Nitrogen, Combustion (16%)	0230	17.10	0.2000	16.94	0.1643	0.0861	56	0.98	0%	0
010.60	Total Nitrogen, Combustion (16%)	0324	17.10	0.0000	16.94	0.1643	0.0861	56	0.98	0%	0
010.60	Total Nitrogen, Combustion (16%)	0523	17.10	0.0000	16.94	0.1643	0.0861	56	0.98	0%	0
010.60	Total Nitrogen, Combustion (16%)	0423	17.11	0.0200	16.94	0.1643	0.0861	56	1.04	1%	0
010.60	Total Nitrogen, Combustion (16%)	0406	17.14	0.0700	16.94	0.1643	0.0861	56	1.19	1%	0
010.60	Total Nitrogen, Combustion (16%)	0007	17.15	0.1000	16.94	0.1643	0.0861	56	1.28	1%	0
010.60	Total Nitrogen, Combustion (16%)	0527	17.20	0.1030	16.94	0.1643	0.0861	56	1.56	1%	0
010.60	Total Nitrogen, Combustion (16%)	0483	17.21	0.0200	16.94	0.1643	0.0861	56	1.65	1%	0
010.60	Total Nitrogen, Combustion (16%)	0034	17.32	0.0200	16.94	0.1643	0.0861	56	2.32	1%	0
010.60	Total Nitrogen, Combustion (16%)	0025	17.44	0.1900	16.94	0.1643	0.0861	56	3.02	1%	0
010.60	Total Nitrogen, Combustion (16%)	0137	17.55	0.5000	16.94	0.1643	0.0861	56	3.72	2%	1
010.99	Total Nitrogen, Other (16%)	0476	16.10*	0.0028	16.70	0.4714	0.2253	8	-1.16	2%	0
010.99	Total Nitrogen, Other (16%)	0529	16.30	0.2600	16.70	0.4714	0.2253	8	-0.77	1%	0
010.99	Total Nitrogen, Other (16%)	0522	16.45	0.8000	16.70	0.4714	0.2253	8	-0.48	1%	0
010.99	Total Nitrogen, Other (16%)	0493	16.65	0.1000	16.70	0.4714	0.2253	8	-0.09	0%	0
010.99	Total Nitrogen, Other (16%)	0420	16.80	0.4000	16.70	0.4714	0.2253	8	0.20	0%	0
010.99	Total Nitrogen, Other (16%)	0508	16.90	0.0200	16.70	0.4714	0.2253	8	0.39	1%	0
010.99	Total Nitrogen, Other (16%)	0524	16.97	0.1696	16.70	0.4714	0.2253	8	0.54	1%	0
010.99	Total Nitrogen, Other (16%)	0513	17.56	0.0500	16.70	0.4714	0.2253	8	1.66	3%	0
020.10	Total Phosphorus as P2O5, Gravimetric Quinoli... (%)	0500	1.080	0.0000	1.182	0.0503	0.0300	7	-1.82	4%	0
020.10	Total Phosphorus as P2O5, Gravimetric Quinoli... (%)	0157	1.150	0.0600	1.182	0.0503	0.0300	7	-0.57	1%	0
020.10	Total Phosphorus as P2O5, Gravimetric Quinoli... (%)	0493	1.175	0.0500	1.182	0.0503	0.0300	7	-0.12	0%	0
020.10	Total Phosphorus as P2O5, Gravimetric Quinoli... (%)	0105	1.180	0.0000	1.182	0.0503	0.0300	7	-0.03	0%	0
020.10	Total Phosphorus as P2O5, Gravimetric Quinoli... (%)	0090	1.200	0.0600	1.182	0.0503	0.0300	7	0.33	1%	0
020.10	Total Phosphorus as P2O5, Gravimetric Quinoli... (%)	0114	1.225	0.0300	1.182	0.0503	0.0300	7	0.78	2%	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
020.10	Total Phosphorus as P2O5, Gravimetric Quinoli... (%)	0136	1.235	0.0100	1.182	0.0503	0.0300	7	0.96	2%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0406	0.8650	0.0700	1.403	0.3737	0.0538	12	-1.44	19%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0416	1.070	0.0600	1.403	0.3737	0.0538	12	-0.89	12%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0420	1.100	0.2000	1.403	0.3737	0.0538	12	-0.81	11%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0476	1.226	0.0271	1.403	0.3737	0.0538	12	-0.47	6%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0457	1.255	0.0300	1.403	0.3737	0.0538	12	-0.40	5%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0292	1.315	0.0300	1.403	0.3737	0.0538	12	-0.24	3%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0324	1.405	0.0700	1.403	0.3737	0.0538	12	0.00	0%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0177	1.540	0.0484	1.403	0.3737	0.0538	12	0.36	5%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0356	1.610	0.0600	1.403	0.3737	0.0538	12	0.55	7%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0309	1.615	0.0300	1.403	0.3737	0.0538	12	0.57	8%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0516	1.910	0.0200	1.403	0.3737	0.0538	12	1.36	18%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0522	1.930	0.0000	1.403	0.3737	0.0538	12	1.41	19%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0428	2.876	1.613	1.403	0.3737	0.0538	12	3.94	52%	1
020.40	Total Phosphorus as P2O5, Automated (%)	0035	0.8925	0.1890	1.321	0.3977	0.0773	4	-1.08	16%	0
020.40	Total Phosphorus as P2O5, Automated (%)	0105	1.260	0.0400	1.321	0.3977	0.0773	4	-0.15	2%	0
020.40	Total Phosphorus as P2O5, Automated (%)	0456	1.275	0.0500	1.321	0.3977	0.0773	4	-0.11	2%	0
020.40	Total Phosphorus as P2O5, Automated (%)	0096	1.855	0.0300	1.321	0.3977	0.0773	4	1.34	20%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0482	0.9150	0.0500	1.177	0.1260	0.0202	15	-2.08	11%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0508	1.041	0.0040	1.177	0.1260	0.0202	15	-1.08	6%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0501	1.055	0.1100	1.177	0.1260	0.0202	15	-0.97	5%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0389	1.070	0.0200	1.177	0.1260	0.0202	15	-0.85	5%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0521	1.108	0.0000	1.177	0.1260	0.0202	15	-0.55	3%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0433	1.155	0.0100	1.177	0.1260	0.0202	15	-0.18	1%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0444	1.175	0.0100	1.177	0.1260	0.0202	15	-0.02	0%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0451	1.200	0.0200	1.177	0.1260	0.0202	15	0.18	1%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0523	1.200	0.0000	1.177	0.1260	0.0202	15	0.18	1%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0231	1.205	0.0100	1.177	0.1260	0.0202	15	0.22	1%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0423	1.215	0.0100	1.177	0.1260	0.0202	15	0.30	2%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0234	1.230	0.0200	1.177	0.1260	0.0202	15	0.42	2%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0524	1.301	0.0104	1.177	0.1260	0.0202	15	0.98	5%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0483	1.350	0.0200	1.177	0.1260	0.0202	15	1.37	7%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0527	1.386	0.0080	1.177	0.1260	0.0202	15	1.66	9%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0472	1.070	0.1200	1.177	0.1260	0.0202	15	-0.85	5%	1
020.99	Total Phosphorus as P2O5, Other (%)	0515	1.076	0.0144				1			0
030.40	Citrate Insoluble Phosphorus as P2O5, Automat... (%)	0096	0.1600	0.0600				1			0
040.40	Indirect Available Phosphorus as P2O5, Automa... (1%)	0096	1.700	0.0200				1			0
041.10	Direct Available Phosphorus as P2O5, Gravimet... (1%)	0086	1.044	0.0123	1.088	0.0401	0.0285	5	-1.09	2%	0
041.10	Direct Available Phosphorus as P2O5, Gravimet... (1%)	0041	1.070	0.1000	1.088	0.0401	0.0285	5	-0.44	1%	0
041.10	Direct Available Phosphorus as P2O5, Gravimet... (1%)	0105	1.075	0.0100	1.088	0.0401	0.0285	5	-0.32	1%	0
041.10	Direct Available Phosphorus as P2O5, Gravimet... (1%)	0040	1.100	0.0000	1.088	0.0401	0.0285	5	0.30	1%	0
041.10	Direct Available Phosphorus as P2O5, Gravimet... (1%)	0055	1.150	0.0200	1.088	0.0401	0.0285	5	1.55	3%	0
041.11	Direct Available Phosphorus as P2O5, Gravimet... (1%)	0513	1.040	0.0600				2			0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
041.11	Direct Available Phosphorus as P2O5, Gravimet... (1%)	0220	1.050	0.1000				2			0
041.21	Direct Available Phosphorus as P2O5, Spectrop... (1%)	0535	1.030	0.0400	1.147	0.1150	0.0267	3	-1.01	5%	0
041.21	Direct Available Phosphorus as P2O5, Spectrop... (1%)	0200	1.150	0.0000	1.147	0.1150	0.0267	3	0.03	0%	0
041.21	Direct Available Phosphorus as P2O5, Spectrop... (1%)	0522	1.260	0.0400	1.147	0.1150	0.0267	3	0.99	5%	0
041.40	Direct Available Phosphorus as P2O5, Automate... (1%)	0131	1.225	0.0300				2			0
041.40	Direct Available Phosphorus as P2O5, Automate... (1%)	0018	1.475	0.0300				2			0
041.50	Direct Available Phosphorus as P2O5, ICP (1%)	0043	0.9800	0.0200	1.058	0.0575	0.0424	7	-1.23	4%	0
041.50	Direct Available Phosphorus as P2O5, ICP (1%)	0233	1.011	0.0090	1.058	0.0575	0.0424	7	-0.75	2%	0
041.50	Direct Available Phosphorus as P2O5, ICP (1%)	0007	1.050	0.1000	1.058	0.0575	0.0424	7	-0.13	0%	0
041.50	Direct Available Phosphorus as P2O5, ICP (1%)	0070	1.055	0.0300	1.058	0.0575	0.0424	7	-0.05	0%	0
041.50	Direct Available Phosphorus as P2O5, ICP (1%)	0368	1.087	0.0008	1.058	0.0575	0.0424	7	0.45	1%	0
041.50	Direct Available Phosphorus as P2O5, ICP (1%)	0137	1.107	0.0970	1.058	0.0575	0.0424	7	0.76	2%	0
041.50	Direct Available Phosphorus as P2O5, ICP (1%)	0291	1.120	0.0400	1.058	0.0575	0.0424	7	0.97	3%	0
041.50	Direct Available Phosphorus as P2O5, ICP (1%)	0325	0.8500	0.3000	1.058	0.0575	0.0424	7	-3.28	10%	1
041.51	Direct Available Phosphorus as P2O5, ICP, Cit... (1%)	0040	1.000	0.0000	1.103	0.1290	0.0383	9	-0.74	5%	0
041.51	Direct Available Phosphorus as P2O5, ICP, Cit... (1%)	0231	1.030	0.0600	1.103	0.1290	0.0383	9	-0.52	3%	0
041.51	Direct Available Phosphorus as P2O5, ICP, Cit... (1%)	0117	1.031	0.0150	1.103	0.1290	0.0383	9	-0.52	3%	0
041.51	Direct Available Phosphorus as P2O5, ICP, Cit... (1%)	0423	1.035	0.0500	1.103	0.1290	0.0383	9	-0.49	3%	0
041.51	Direct Available Phosphorus as P2O5, ICP, Cit... (1%)	0360	1.040	0.0000	1.103	0.1290	0.0383	9	-0.45	3%	0
041.51	Direct Available Phosphorus as P2O5, ICP, Cit... (1%)	0377	1.065	0.0700	1.103	0.1290	0.0383	9	-0.27	2%	0
041.51	Direct Available Phosphorus as P2O5, ICP, Cit... (1%)	0023	1.145	0.0100	1.103	0.1290	0.0383	9	0.30	2%	0
041.51	Direct Available Phosphorus as P2O5, ICP, Cit... (1%)	0494	1.285	0.0900	1.103	0.1290	0.0383	9	1.30	8%	0
041.51	Direct Available Phosphorus as P2O5, ICP, Cit... (1%)	0072	1.325	0.0500	1.103	0.1290	0.0383	9	1.59	10%	0
041.60	Direct Available Phosphorus as P2O5, Citrate-... (1%)	0472	0.9450	0.0100	1.282	0.3458	0.0502	12	-0.97	13%	0
041.60	Direct Available Phosphorus as P2O5, Citrate-... (1%)	0486	0.9900	0.0200	1.282	0.3458	0.0502	12	-0.84	11%	0
041.60	Direct Available Phosphorus as P2O5, Citrate-... (1%)	0073	1.005	0.0500	1.282	0.3458	0.0502	12	-0.80	11%	0
041.60	Direct Available Phosphorus as P2O5, Citrate-... (1%)	0351	1.071	0.0457	1.282	0.3458	0.0502	12	-0.61	8%	0
041.60	Direct Available Phosphorus as P2O5, Citrate-... (1%)	0072	1.105	0.0300	1.282	0.3458	0.0502	12	-0.51	7%	0
041.60	Direct Available Phosphorus as P2O5, Citrate-... (1%)	0043	1.115	0.0100	1.282	0.3458	0.0502	12	-0.48	7%	0
041.60	Direct Available Phosphorus as P2O5, Citrate-... (1%)	0354	1.163	0.0350	1.282	0.3458	0.0502	12	-0.35	5%	0
041.60	Direct Available Phosphorus as P2O5, Citrate-... (1%)	0037	1.440	0.1060	1.282	0.3458	0.0502	12	0.46	6%	0
041.60	Direct Available Phosphorus as P2O5, Citrate-... (1%)	0526	1.450	0.1000	1.282	0.3458	0.0502	12	0.49	7%	0
041.60	Direct Available Phosphorus as P2O5, Citrate-... (1%)	0034	1.516	0.1060	1.282	0.3458	0.0502	12	0.68	9%	0
041.60	Direct Available Phosphorus as P2O5, Citrate-... (1%)	0055	1.785	0.0100	1.282	0.3458	0.0502	12	1.45	20%	0
041.60	Direct Available Phosphorus as P2O5, Citrate-... (1%)	0029	1.800	0.0800	1.282	0.3458	0.0502	12	1.50	20%	0
041.60	Direct Available Phosphorus as P2O5, Citrate-... (1%)	0230	1.595	0.3300	1.282	0.3458	0.0502	12	0.91	12%	1
041.99	Direct Available Phosphorus as P2O5, Other (1%)	0518	0.9100	0.0600	1.027	0.0412	0.0517	6	-2.52	6%	0
041.99	Direct Available Phosphorus as P2O5, Other (1%)	0532	1.015	0.0500	1.027	0.0412	0.0517	6	-0.25	1%	0
041.99	Direct Available Phosphorus as P2O5, Other (1%)	0531	1.020	0.0200	1.027	0.0412	0.0517	6	-0.14	0%	0
041.99	Direct Available Phosphorus as P2O5, Other (1%)	0533	1.040	0.0200	1.027	0.0412	0.0517	6	0.29	1%	0
041.99	Direct Available Phosphorus as P2O5, Other (1%)	0535	1.050	0.1000	1.027	0.0412	0.0517	6	0.50	1%	0
041.99	Direct Available Phosphorus as P2O5, Other (1%)	0540	1.070	0.0600	1.027	0.0412	0.0517	6	0.94	2%	0
041.99	Direct Available Phosphorus as P2O5, Other (1%)	0231	1.265	0.3100	1.027	0.0412	0.0517	6	5.15	12%	1

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
048.40	Water Soluble Phosphorus as P2O5, Automated (%)	0096	0.1150	0.0300				1			0
050.31	Soluble Potassium as K2O, AA (Citrate) (0.000... (0.0000001%))	0472	1.630	0.0600				1			0
050.51	Soluble Potassium as K2O, ICP (Citrate) (0.00... (0.0000001%))	0007	1.700	0.0000				2			0
050.51	Soluble Potassium as K2O, ICP (Citrate) (0.00... (0.0000001%))	0483	1.700	0.1800				2			0
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) ... (0.0000001%)	0494	1.665	0.1700	1.757	0.0749	0.0921	7	-1.11	3%	0
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) ... (0.0000001%)	0354	1.689	0.1550	1.757	0.0749	0.0921	7	-0.83	2%	0
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) ... (0.0000001%)	0423	1.740	0.0210	1.757	0.0749	0.0921	7	-0.21	1%	0
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) ... (0.0000001%)	0360	1.760	0.0000	1.757	0.0749	0.0921	7	0.04	0%	0
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) ... (0.0000001%)	0117	1.779	0.1230	1.757	0.0749	0.0921	7	0.26	1%	0
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) ... (0.0000001%)	0377	1.820	0.0400	1.757	0.0749	0.0921	7	0.76	2%	0
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) ... (0.0000001%)	0137	1.848	0.1360	1.757	0.0749	0.0921	7	1.10	3%	0
050.60	Soluble Potassium as K2O, Flame Photometric (... (0.0000001%))	0105	1.765	0.0100				1			0
050.61	Soluble Potassium as K2O, Flame Photometric (... (0.0000001%))	0035	1.650	0.4800				1			0
050.99	Soluble Potassium as K2O, Other (0.0000001%)	0043	1.155*	0.0500	1.724	0.1144	0.0394	9	-4.59	16%	0
050.99	Soluble Potassium as K2O, Other (0.0000001%)	0521	1.659	0.0000	1.724	0.1144	0.0394	9	-0.52	2%	0
050.99	Soluble Potassium as K2O, Other (0.0000001%)	0389	1.665	0.0100	1.724	0.1144	0.0394	9	-0.47	2%	0
050.99	Soluble Potassium as K2O, Other (0.0000001%)	0096	1.685	0.0300	1.724	0.1144	0.0394	9	-0.31	1%	0
050.99	Soluble Potassium as K2O, Other (0.0000001%)	0482	1.715	0.0300	1.724	0.1144	0.0394	9	-0.07	0%	0
050.99	Soluble Potassium as K2O, Other (0.0000001%)	0523	1.750	0.1000	1.724	0.1144	0.0394	9	0.21	1%	0
050.99	Soluble Potassium as K2O, Other (0.0000001%)	0451	1.760	0.0400	1.724	0.1144	0.0394	9	0.29	1%	0
050.99	Soluble Potassium as K2O, Other (0.0000001%)	0527	1.835	0.0900	1.724	0.1144	0.0394	9	0.90	3%	0
050.99	Soluble Potassium as K2O, Other (0.0000001%)	0524	1.892	0.0049	1.724	0.1144	0.0394	9	1.36	5%	0
050.99	Soluble Potassium as K2O, Other (0.0000001%)	0325	1.550	0.5000	1.724	0.1144	0.0394	9	-1.40	5%	1
060.00	Water (Free), Vacuum Oven (%)	0007	0.4650	0.0500	0.6312	0.2729	0.0600	4	-0.61	13%	0
060.00	Water (Free), Vacuum Oven (%)	0456	0.4650	0.0300	0.6312	0.2729	0.0600	4	-0.61	13%	0
060.00	Water (Free), Vacuum Oven (%)	0416	0.5598	0.0299	0.6312	0.2729	0.0600	4	-0.26	6%	0
060.00	Water (Free), Vacuum Oven (%)	0096	1.035	0.1300	0.6312	0.2729	0.0600	4	1.48	32%	0
060.30	Water (Free), AFPC No. 2B (105°C oven for 2 h... (%))	0513	1.285	0.0300				1			0
060.99	Water (Free), Other (%)	0513	1.390	0.0200				1			0
101.00	Acid Soluble Calcium, AA, inorganic 965.09 (%)	0535	0.4750	0.0500				2			0
101.00	Acid Soluble Calcium, AA, inorganic 965.09 (%)	0105	0.5320	0.0180				2			0
101.03	Acid Soluble Calcium, AA, 965.09, test portio... (%)	0105	0.5390	0.0420				1			0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (%)	0472	0.4200	0.0000	0.5162	0.0784	0.0338	6	-1.09	9%	0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (%)	0482	0.4950	0.0100	0.5162	0.0784	0.0338	6	-0.24	2%	0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (%)	0096	0.5025	0.0010	0.5162	0.0784	0.0338	6	-0.16	1%	0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (%)	0035	0.5170	0.0420	0.5162	0.0784	0.0338	6	0.01	0%	0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (%)	0354	0.5290	0.0620	0.5162	0.0784	0.0338	6	0.15	1%	0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (%)	0483	0.7470	0.0880	0.5162	0.0784	0.0338	6	2.62	22%	0
101.32	Acid Soluble Calcium, ICP, test portion 2006.... (%)	0521	0.4417	0.0000				2			0
101.32	Acid Soluble Calcium, ICP, test portion 2006.... (%)	0423	0.4700	0.0160				2			0
101.33	Acid Soluble Calcium, ICP, test portion 2006.... (%)	0494	0.4735	0.0370	0.4939	0.0316	0.0195	4	-0.65	2%	0
101.33	Acid Soluble Calcium, ICP, test portion 2006.... (%)	0034	0.4805	0.0290	0.4939	0.0316	0.0195	4	-0.42	1%	0
101.33	Acid Soluble Calcium, ICP, test portion 2006.... (%)	0117	0.4807	0.0101	0.4939	0.0316	0.0195	4	-0.42	1%	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
101.33	Acid Soluble Calcium, ICP, test portion 2006.... (%)	0527	0.5410	0.0020	0.4939	0.0316	0.0195	4	1.49	5%	0
101.99	Acid Soluble Calcium, Other (%)	0389	0.4650	0.0000				2			0
101.99	Acid Soluble Calcium, Other (%)	0501	0.4750	0.0100				2			0
121.00	Acid Soluble Magnesium, AA, inorganic 965.09 (%)	0105	0.1835	0.0010	0.1978	0.0159	0.0070	3	-0.90	4%	0
121.00	Acid Soluble Magnesium, AA, inorganic 965.09 (%)	0043	0.1950	0.0100	0.1978	0.0159	0.0070	3	-0.18	1%	0
121.00	Acid Soluble Magnesium, AA, inorganic 965.09 (%)	0535	0.2150	0.0100	0.1978	0.0159	0.0070	3	1.08	4%	0
121.03	Acid Soluble Magnesium, AA, 965.09, test port... (%)	0105	0.1770	0.0000				1			0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (%)	0472	0.1700	0.0000	0.1954	0.0208	0.0035	6	-1.08	6%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (%)	0096	0.1900	0.0000	0.1954	0.0208	0.0035	6	-0.23	1%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (%)	0482	0.1900	0.0000	0.1954	0.0208	0.0035	6	-0.23	1%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (%)	0354	0.1975	0.0130	0.1954	0.0208	0.0035	6	0.09	1%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (%)	0035	0.1980	0.0040	0.1954	0.0208	0.0035	6	0.11	1%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (%)	0483	0.2380	0.0040	0.1954	0.0208	0.0035	6	1.82	11%	0
121.32	Acid Soluble Magnesium, ICP, test portion 200... (%)	0521	0.1783	0.0000				2			0
121.32	Acid Soluble Magnesium, ICP, test portion 200... (%)	0423	0.4475	0.0170				2			0
121.33	Acid Soluble Magnesium, ICP, test portion 200... (%)	0494	0.1825	0.0070	0.1975	0.0160	0.0034	4	-0.94	4%	0
121.33	Acid Soluble Magnesium, ICP, test portion 200... (%)	0117	0.1882	0.0017	0.1975	0.0160	0.0034	4	-0.59	2%	0
121.33	Acid Soluble Magnesium, ICP, test portion 200... (%)	0034	0.2010	0.0020	0.1975	0.0160	0.0034	4	0.22	1%	0
121.33	Acid Soluble Magnesium, ICP, test portion 200... (%)	0527	0.2185	0.0030	0.1975	0.0160	0.0034	4	1.31	5%	0
121.99	Acid Soluble Magnesium, Other (%)	0501	0.1600	0.0200	0.1731	0.0127	0.0075	3	-1.03	4%	0
121.99	Acid Soluble Magnesium, Other (%)	0389	0.1740	0.0000	0.1731	0.0127	0.0075	3	0.07	0%	0
121.99	Acid Soluble Magnesium, Other (%)	0524	0.1854	0.0025	0.1731	0.0127	0.0075	3	0.96	4%	0
143.99	Elemental Sulfur, Other (%)	0472	18.11	0.0100				2			0
143.99	Elemental Sulfur, Other (%)	0389	19.05	0.1000				2			0
145.00	Sulfate Sulfur, HCl soluble, Gravimetric Sulf... (%)	0200	17.23	0.0000	18.87	0.9526	0.2680	5	-1.73	4%	0
145.00	Sulfate Sulfur, HCl soluble, Gravimetric Sulf... (%)	0522	19.04	0.3400	18.87	0.9526	0.2680	5	0.17	0%	0
145.00	Sulfate Sulfur, HCl soluble, Gravimetric Sulf... (%)	0444	19.15	0.7600	18.87	0.9526	0.2680	5	0.29	1%	0
145.00	Sulfate Sulfur, HCl soluble, Gravimetric Sulf... (%)	0233	19.25	0.0400	18.87	0.9526	0.2680	5	0.39	1%	0
145.00	Sulfate Sulfur, HCl soluble, Gravimetric Sulf... (%)	0043	19.70	0.2000	18.87	0.9526	0.2680	5	0.87	2%	0
145.99	Sulfate Sulfur, HCl soluble, Other (%)	0456	16.09	0.1300	18.30	2.023	0.3533	3	-1.09	6%	0
145.99	Sulfate Sulfur, HCl soluble, Other (%)	0444	18.77	0.4300	18.30	2.023	0.3533	3	0.23	1%	0
145.99	Sulfate Sulfur, HCl soluble, Other (%)	0518	20.05	0.5000	18.30	2.023	0.3533	3	0.87	5%	0
146.99	Total Sulfur in Liquid, Other (%)	0131	19.10	0.0300				1			0
148.00	Total Sulfur, Combustion (20%)	0157	18.40	0.8000	19.13	0.8525	0.4867	6	-0.76	2%	0
148.00	Total Sulfur, Combustion (20%)	0029	18.69	0.0400	19.13	0.8525	0.4867	6	-0.45	1%	0
148.00	Total Sulfur, Combustion (20%)	0360	18.74	0.2600	19.13	0.8525	0.4867	6	-0.40	1%	0
148.00	Total Sulfur, Combustion (20%)	0025	18.78	0.4600	19.13	0.8525	0.4867	6	-0.36	1%	0
148.00	Total Sulfur, Combustion (20%)	0420	19.90	0.2000	19.13	0.8525	0.4867	6	0.81	2%	0
148.00	Total Sulfur, Combustion (20%)	0451	20.24	1.160	19.13	0.8525	0.4867	6	1.16	3%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (20%)	0444	18.32	0.7200	19.35	0.6904	0.3322	13	-1.49	3%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (20%)	0117	18.61	0.0682	19.35	0.6904	0.3322	13	-1.08	2%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (20%)	0105	18.85	0.2900	19.35	0.6904	0.3322	13	-0.73	1%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (20%)	0513	18.93	0.0400	19.35	0.6904	0.3322	13	-0.61	1%	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
148.01	Total Sulfur, Gravimetric - sulfate and elem... (20%)	0029	19.04	0.0600	19.35	0.6904	0.3322	13	-0.45	1%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (20%)	0230	19.20	0.4000	19.35	0.6904	0.3322	13	-0.22	0%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (20%)	0324	19.25	0.1000	19.35	0.6904	0.3322	13	-0.14	0%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (20%)	0040	19.40	0.2000	19.35	0.6904	0.3322	13	0.07	0%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (20%)	0055	19.71	0.2200	19.35	0.6904	0.3322	13	0.52	1%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (20%)	0157	19.80	0.8000	19.35	0.6904	0.3322	13	0.65	1%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (20%)	0114	20.07	1.170	19.35	0.6904	0.3322	13	1.04	2%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (20%)	0457	20.08	0.0500	19.35	0.6904	0.3322	13	1.05	2%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (20%)	0526	20.30	0.2000	19.35	0.6904	0.3322	13	1.38	2%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (20%)	0444	17.37*	0.3500	19.03	0.8235	0.1735	11	-2.03	4%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (20%)	0515	17.86*	0.2618	19.03	0.8235	0.1735	11	-1.43	3%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (20%)	0117	18.71	0.1100	19.03	0.8235	0.1735	11	-0.40	1%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (20%)	0023	18.94	0.4500	19.03	0.8235	0.1735	11	-0.11	0%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (20%)	0486	18.98	0.1700	19.03	0.8235	0.1735	11	-0.07	0%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (20%)	0494	19.13	0.0300	19.03	0.8235	0.1735	11	0.11	0%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (20%)	0406	19.21	0.0500	19.03	0.8235	0.1735	11	0.21	0%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (20%)	0037	19.21	0.2090	19.03	0.8235	0.1735	11	0.22	0%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (20%)	0177	19.67	0.1446	19.03	0.8235	0.1735	11	0.77	2%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (20%)	0525	19.73	0.1300	19.03	0.8235	0.1735	11	0.84	2%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (20%)	0527	20.17	0.0030	19.03	0.8235	0.1735	11	1.38	3%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (20%)	0483	18.05*	3.500	19.03	0.8235	0.1735	11	-1.20	3%	1
148.99	Total Sulfur, Other (20%)	0368	16.08*	0.4047	18.89	1.277	0.2939	11	-2.20	7%	0
148.99	Total Sulfur, Other (20%)	0137	17.55*	0.5000	18.89	1.277	0.2939	11	-1.05	4%	0
148.99	Total Sulfur, Other (20%)	0096	18.19	0.3000	18.89	1.277	0.2939	11	-0.55	2%	0
148.99	Total Sulfur, Other (20%)	0354	18.55	0.0380	18.89	1.277	0.2939	11	-0.27	1%	0
148.99	Total Sulfur, Other (20%)	0072	18.55	0.1400	18.89	1.277	0.2939	11	-0.26	1%	0
148.99	Total Sulfur, Other (20%)	0523	18.59	0.1200	18.89	1.277	0.2939	11	-0.23	1%	0
148.99	Total Sulfur, Other (20%)	0482	19.10	1.000	18.89	1.277	0.2939	11	0.17	1%	0
148.99	Total Sulfur, Other (20%)	0500	19.71	0.0000	18.89	1.277	0.2939	11	0.64	2%	0
148.99	Total Sulfur, Other (20%)	0291	19.72	0.0100	18.89	1.277	0.2939	11	0.65	2%	0
148.99	Total Sulfur, Other (20%)	0220	20.04	0.1400	18.89	1.277	0.2939	11	0.90	3%	0
148.99	Total Sulfur, Other (20%)	0450	27.17	0.5800	18.89	1.277	0.2939	11	6.49	22%	0
148.99	Total Sulfur, Other (20%)	0501	19.80	1.630	18.89	1.277	0.2939	11	0.71	2%	1
149.04	Sulfur - HNO3 soluble, ICP (%)	0524	16.39	0.1750	18.11	1.542	0.0917	3	-1.11	5%	0
149.04	Sulfur - HNO3 soluble, ICP (%)	0423	18.55	0.1000	18.11	1.542	0.0917	3	0.29	1%	0
149.04	Sulfur - HNO3 soluble, ICP (%)	0521	19.38	0.0000	18.11	1.542	0.0917	3	0.83	4%	0
151.00	Acid Soluble Arsenic , AA, test portion as in... (ppm)	0136	0.3700	0.0200				1			0
151.30	Acid Soluble Arsenic , ICP (ppm)	0523	0.1800	0.0200	1.165	1.463	0.1672	5	-0.67	42%	0
151.30	Acid Soluble Arsenic , ICP (ppm)	0450	0.5000	0.0000	1.165	1.463	0.1672	5	-0.45	29%	0
151.30	Acid Soluble Arsenic , ICP (ppm)	0476	0.5670	0.0560	1.165	1.463	0.1672	5	-0.41	26%	0
151.30	Acid Soluble Arsenic , ICP (ppm)	0501	0.8300	0.0600	1.165	1.463	0.1672	5	-0.23	14%	0
151.30	Acid Soluble Arsenic , ICP (ppm)	0368	3.750	0.7000	1.165	1.463	0.1672	5	1.77	111%	0
151.33	Acid Soluble Arsenic , ICP, 2006.03 modified ... (ppm)	0527	0.5210	0.0240				1			0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
151.99	Acid Soluble Arsenic , Other (ppm)	0042	49.51	1.280				1			0
165.30	Acid Soluble Boron , ICP, test portion in 982... (%)	0389	0.0005	0.0001	0.0035	0.0048	0.0000	3	-0.62	43%	0
165.30	Acid Soluble Boron , ICP, test portion in 982... (%)	0521	0.0009	0.0000	0.0035	0.0048	0.0000	3	-0.53	37%	0
165.30	Acid Soluble Boron , ICP, test portion in 982... (%)	0354	0.0090	0.0000	0.0035	0.0048	0.0000	3	1.15	80%	0
165.99	Acid Soluble Boron , Other (%)	0423	0.0010	0.0000	0.0071	0.0103	0.0007	5	-0.59	43%	0
165.99	Acid Soluble Boron , Other (%)	0524	0.0022	0.0000	0.0071	0.0103	0.0007	5	-0.47	34%	0
165.99	Acid Soluble Boron , Other (%)	0483	0.0030	0.0022	0.0071	0.0103	0.0007	5	-0.40	29%	0
165.99	Acid Soluble Boron , Other (%)	0501	0.0038	0.0003	0.0071	0.0103	0.0007	5	-0.32	24%	0
165.99	Acid Soluble Boron , Other (%)	0527	0.0255	0.0010	0.0071	0.0103	0.0007	5	1.78	130%	0
181.30	Acid Soluble Cadmium , ICP (ppm)	0501	0.1500	0.0000	0.3344	0.2114	0.0367	8	-0.80	28%	0
181.30	Acid Soluble Cadmium , ICP (ppm)	0389	0.1500	0.1000	0.3344	0.2114	0.0367	8	-0.80	28%	0
181.30	Acid Soluble Cadmium , ICP (ppm)	0476	0.1550	0.0080	0.3344	0.2114	0.0367	8	-0.78	27%	0
181.30	Acid Soluble Cadmium , ICP (ppm)	0450	0.2000	0.0000	0.3344	0.2114	0.0367	8	-0.58	20%	0
181.30	Acid Soluble Cadmium , ICP (ppm)	0523	0.4425	0.0110	0.3344	0.2114	0.0367	8	0.47	16%	0
181.30	Acid Soluble Cadmium , ICP (ppm)	0444	0.4800	0.1200	0.3344	0.2114	0.0367	8	0.63	22%	0
181.30	Acid Soluble Cadmium , ICP (ppm)	0035	0.5460	0.0480	0.3344	0.2114	0.0367	8	0.92	32%	0
181.30	Acid Soluble Cadmium , ICP (ppm)	0524	0.5521	0.0069	0.3344	0.2114	0.0367	8	0.94	33%	0
181.30	Acid Soluble Cadmium , ICP (ppm)	0368	0.0000	0.0000	0.3344	0.2114	0.0367	8			4
181.33	Acid Soluble Cadmium , ICP, 2006.03 modified ... (ppm)	0527	0.1795	0.0070				2			0
181.33	Acid Soluble Cadmium , ICP, 2006.03 modified ... (ppm)	0515	2.098	0.1890				2			0
181.34	Acid Soluble Cadmium , ICP, EPA 3050B/6010C (ppm)	0230	0.4120	0.3520				2			0
181.34	Acid Soluble Cadmium , ICP, EPA 3050B/6010C (ppm)	0515	0.7690	0.0640				2			0
181.99	Acid Soluble Cadmium , Other (ppm)	0042	0.1250	0.0100				1			0
190.00	Water Soluble Chlorine, Titrimetric (%)	0105	1.120	0.1000				1			0
191.30	Acid Soluble Chromium , ICP (ppm)	0501	9.495	0.5100	13.26	3.251	0.6340	10	-1.08	14%	0
191.30	Acid Soluble Chromium , ICP (ppm)	0368	9.650	0.3000	13.26	3.251	0.6340	10	-1.03	14%	0
191.30	Acid Soluble Chromium , ICP (ppm)	0444	10.61	1.420	13.26	3.251	0.6340	10	-0.76	10%	0
191.30	Acid Soluble Chromium , ICP (ppm)	0482	12.85	0.5000	13.26	3.251	0.6340	10	-0.12	2%	0
191.30	Acid Soluble Chromium , ICP (ppm)	0389	12.85	0.1000	13.26	3.251	0.6340	10	-0.12	2%	0
191.30	Acid Soluble Chromium , ICP (ppm)	0096	13.35	0.3000	13.26	3.251	0.6340	10	0.03	0%	0
191.30	Acid Soluble Chromium , ICP (ppm)	0476	13.54	0.8300	13.26	3.251	0.6340	10	0.08	1%	0
191.30	Acid Soluble Chromium , ICP (ppm)	0450	16.00	2.000	13.26	3.251	0.6340	10	0.78	10%	0
191.30	Acid Soluble Chromium , ICP (ppm)	0035	16.10	0.0000	13.26	3.251	0.6340	10	0.81	11%	0
191.30	Acid Soluble Chromium , ICP (ppm)	0523	33.01	0.3800	13.26	3.251	0.6340	10	5.65	74%	0
191.33	Acid Soluble Chromium , ICP, 2006.03 modified... (ppm)	0527	11.49	0.0800	14.47	1.993	1.004	4	-1.49	10%	0
191.33	Acid Soluble Chromium , ICP, 2006.03 modified... (ppm)	0515	15.27	3.164	14.47	1.993	1.004	4	0.40	3%	0
191.33	Acid Soluble Chromium , ICP, 2006.03 modified... (ppm)	0117	15.43	0.0900	14.47	1.993	1.004	4	0.48	3%	0
191.33	Acid Soluble Chromium , ICP, 2006.03 modified... (ppm)	0037	15.70	0.6820	14.47	1.993	1.004	4	0.61	4%	0
191.34	Acid Soluble Chromium , ICP, EPA 3050B/6010C (ppm)	0230	11.16	8.090				2			0
191.34	Acid Soluble Chromium , ICP, EPA 3050B/6010C (ppm)	0515	14.00	2.293				2			0
191.99	Acid Soluble Chromium , Other (ppm)	0042	12.59	0.4100				2			0
191.99	Acid Soluble Chromium , Other (ppm)	0535	24.50	1.000				2			0
202.30	Acid Soluble Cobalt , ICP (ppm)	0096	4.265	2.490	6.948	2.002	0.7141	8	-1.23	19%	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
202.30	Acid Soluble Cobalt , ICP (ppm)	0368	4.450	1.300	6.948	2.002	0.7141	8	-1.14	18%	0
202.30	Acid Soluble Cobalt , ICP (ppm)	0389	6.850	0.1000	6.948	2.002	0.7141	8	-0.04	1%	0
202.30	Acid Soluble Cobalt , ICP (ppm)	0476	7.215	0.2100	6.948	2.002	0.7141	8	0.12	2%	0
202.30	Acid Soluble Cobalt , ICP (ppm)	0482	7.650	0.3000	6.948	2.002	0.7141	8	0.32	5%	0
202.30	Acid Soluble Cobalt , ICP (ppm)	0523	7.750	0.0000	6.948	2.002	0.7141	8	0.37	6%	0
202.30	Acid Soluble Cobalt , ICP (ppm)	0035	7.985	1.090	6.948	2.002	0.7141	8	0.47	7%	0
202.30	Acid Soluble Cobalt , ICP (ppm)	0524	9.415	0.2224	6.948	2.002	0.7141	8	1.13	18%	0
202.32	Acid Soluble Cobalt , ICP, 2006.03 (ppm)	0423	8.115	0.4500				1			0
202.33	Acid Soluble Cobalt , ICP, 2006.03 modified w... (ppm)	0515	7.213	1.665	8.584	1.460	0.5775	4	-0.94	8%	0
202.33	Acid Soluble Cobalt , ICP, 2006.03 modified w... (ppm)	0527	7.567	0.1520	8.584	1.460	0.5775	4	-0.70	6%	0
202.33	Acid Soluble Cobalt , ICP, 2006.03 modified w... (ppm)	0117	9.217	0.0940	8.584	1.460	0.5775	4	0.43	4%	0
202.33	Acid Soluble Cobalt , ICP, 2006.03 modified w... (ppm)	0037	10.34	0.3990	8.584	1.460	0.5775	4	1.20	10%	0
202.34	Acid Soluble Cobalt , ICP, EPA 3050B/6010C (ppm)	0501	5.505	0.3100	5.779	0.3995	2.004	3	-0.69	2%	0
202.34	Acid Soluble Cobalt , ICP, EPA 3050B/6010C (ppm)	0230	5.595	4.210	5.779	0.3995	2.004	3	-0.46	2%	0
202.34	Acid Soluble Cobalt , ICP, EPA 3050B/6010C (ppm)	0515	6.238	1.491	5.779	0.3995	2.004	3	1.15	4%	0
202.99	Acid Soluble Cobalt , Other (ppm)	0042	5.350	0.2600				1			0
221.00	Acid Soluble Copper , AA, inorganic 965.09 (%)	0105	0.0040	0.0000	0.0053	0.0011	0.0001	3	-1.15	12%	0
221.00	Acid Soluble Copper , AA, inorganic 965.09 (%)	0043	0.0060	0.0003	0.0053	0.0011	0.0001	3	0.58	6%	0
221.00	Acid Soluble Copper , AA, inorganic 965.09 (%)	0200	0.0060	0.0001	0.0053	0.0011	0.0001	3	0.58	6%	0
221.01	Acid Soluble Copper , AA, organic 965.09 (%)	0531	0.0000	0.0000				0			4
221.03	Acid Soluble Copper , AA, 965.09, test portio... (%)	0105	0.0060	0.0001				1			0
221.30	Acid Soluble Copper , ICP, test portion inorg... (%)	0096	0.0043	0.0001	0.0061	0.0019	0.0007	10	-0.90	15%	0
221.30	Acid Soluble Copper , ICP, test portion inorg... (%)	0230	0.0045	0.0033	0.0061	0.0019	0.0007	10	-0.80	13%	0
221.30	Acid Soluble Copper , ICP, test portion inorg... (%)	0444	0.0046	0.0000	0.0061	0.0019	0.0007	10	-0.73	12%	0
221.30	Acid Soluble Copper , ICP, test portion inorg... (%)	0233	0.0055	0.0003	0.0061	0.0019	0.0007	10	-0.30	5%	0
221.30	Acid Soluble Copper , ICP, test portion inorg... (%)	0483	0.0057	0.0003	0.0061	0.0019	0.0007	10	-0.20	3%	0
221.30	Acid Soluble Copper , ICP, test portion inorg... (%)	0035	0.0060	0.0003	0.0061	0.0019	0.0007	10	-0.05	1%	0
221.30	Acid Soluble Copper , ICP, test portion inorg... (%)	0433	0.0060	0.0000	0.0061	0.0019	0.0007	10	-0.03	0%	0
221.30	Acid Soluble Copper , ICP, test portion inorg... (%)	0354	0.0065	0.0030	0.0061	0.0019	0.0007	10	0.22	4%	0
221.30	Acid Soluble Copper , ICP, test portion inorg... (%)	0472	0.0100	0.0000	0.0061	0.0019	0.0007	10	1.97	33%	0
221.30	Acid Soluble Copper , ICP, test portion inorg... (%)	0482	0.0100	0.0000	0.0061	0.0019	0.0007	10	1.97	33%	0
221.30	Acid Soluble Copper , ICP, test portion inorg... (%)	0450	61.10	12.40	0.0061	0.0019	0.0007	10	30452.43	504425%	2
221.32	Acid Soluble Copper , ICP, test portion 2006.... (%)	0521	0.0081	0.0000				2			0
221.32	Acid Soluble Copper , ICP, test portion 2006.... (%)	0423	0.0125	0.0010				2			0
221.33	Acid Soluble Copper , ICP, test portion 2006.... (%)	0515	0.0054	0.0002	10.81	24.16	0.4760	5	-0.45	50%	0
221.33	Acid Soluble Copper , ICP, test portion 2006.... (%)	0117	0.0057	0.0003	10.81	24.16	0.4760	5	-0.45	50%	0
221.33	Acid Soluble Copper , ICP, test portion 2006.... (%)	0494	0.0058	0.0004	10.81	24.16	0.4760	5	-0.45	50%	0
221.33	Acid Soluble Copper , ICP, test portion 2006.... (%)	0527	0.0060	0.0000	10.81	24.16	0.4760	5	-0.45	50%	0
221.33	Acid Soluble Copper , ICP, test portion 2006.... (%)	0037	54.03	2.379	10.81	24.16	0.4760	5	1.79	200%	0
221.99	Acid Soluble Copper , Other (%)	0515	0.0039	0.0023	0.0052	0.0010	0.0006	8	-1.21	13%	0
221.99	Acid Soluble Copper , Other (%)	0042	0.0040	0.0000	0.0052	0.0010	0.0006	8	-1.07	11%	0
221.99	Acid Soluble Copper , Other (%)	0476	0.0050	0.0000	0.0052	0.0010	0.0006	8	-0.14	2%	0
221.99	Acid Soluble Copper , Other (%)	0368	0.0054	0.0001	0.0052	0.0010	0.0006	8	0.18	2%	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
221.99	Acid Soluble Copper , Other (%)	0501	0.0055	0.0010	0.0052	0.0010	0.0006	8	0.32	3%	0
221.99	Acid Soluble Copper , Other (%)	0524	0.0055	0.0002	0.0052	0.0010	0.0006	8	0.32	3%	0
221.99	Acid Soluble Copper , Other (%)	0389	0.0056	0.0001	0.0052	0.0010	0.0006	8	0.36	4%	0
221.99	Acid Soluble Copper , Other (%)	0523	0.0065	0.0010	0.0052	0.0010	0.0006	8	1.25	13%	0
241.00	Acid Soluble Iron, AA, inorganic 965.09 (2%)	0500	1.960*	0.0000	2.500	0.2766	0.0484	11	-1.83	11%	0
241.00	Acid Soluble Iron, AA, inorganic 965.09 (2%)	0540	2.250*	0.1000	2.500	0.2766	0.0484	11	-0.85	5%	0
241.00	Acid Soluble Iron, AA, inorganic 965.09 (2%)	0516	2.315*	0.0700	2.500	0.2766	0.0484	11	-0.63	4%	0
241.00	Acid Soluble Iron, AA, inorganic 965.09 (2%)	0535	2.350	0.1000	2.500	0.2766	0.0484	11	-0.51	3%	0
241.00	Acid Soluble Iron, AA, inorganic 965.09 (2%)	0532	2.420	0.0400	2.500	0.2766	0.0484	11	-0.27	2%	0
241.00	Acid Soluble Iron, AA, inorganic 965.09 (2%)	0513	2.495	0.0500	2.500	0.2766	0.0484	11	-0.02	0%	0
241.00	Acid Soluble Iron, AA, inorganic 965.09 (2%)	0457	2.605	0.0300	2.500	0.2766	0.0484	11	0.35	2%	0
241.00	Acid Soluble Iron, AA, inorganic 965.09 (2%)	0029	2.643	0.0700	2.500	0.2766	0.0484	11	0.48	3%	0
241.00	Acid Soluble Iron, AA, inorganic 965.09 (2%)	0043	2.670	0.0400	2.500	0.2766	0.0484	11	0.57	3%	0
241.00	Acid Soluble Iron, AA, inorganic 965.09 (2%)	0040	2.755	0.0100	2.500	0.2766	0.0484	11	0.86	5%	0
241.00	Acid Soluble Iron, AA, inorganic 965.09 (2%)	0105	3.007	0.0220	2.500	0.2766	0.0484	11	1.71	10%	0
241.01	Acid Soluble Iron, AA, organic 965.09 (2%)	0531	2.100*	0.0400				2			0
241.01	Acid Soluble Iron, AA, organic 965.09 (2%)	0356	2.475	0.0300				2			0
241.03	Acid Soluble Iron, AA, 965.09, test portion 2... (2%)	0105	2.773	0.2180				1			0
241.20	Acid Soluble Iron , Colormetric (2%)	0518	2.270*	0.0400				1			0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (2%)	0482	1.370*	0.2600	2.652	0.1495	0.0869	16	-8.58	24%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (2%)	0420	2.416	0.0160	2.652	0.1495	0.0869	16	-1.58	4%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (2%)	0234	2.550	0.0600	2.652	0.1495	0.0869	16	-0.68	2%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (2%)	0157	2.570	0.1800	2.652	0.1495	0.0869	16	-0.55	2%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (2%)	0233	2.596	0.0930	2.652	0.1495	0.0869	16	-0.38	1%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (2%)	0354	2.597	0.0010	2.652	0.1495	0.0869	16	-0.37	1%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (2%)	0291	2.620	0.0400	2.652	0.1495	0.0869	16	-0.21	1%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (2%)	0433	2.625	0.0300	2.652	0.1495	0.0869	16	-0.18	1%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (2%)	0444	2.655	0.0700	2.652	0.1495	0.0869	16	0.02	0%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (2%)	0096	2.670	0.0600	2.652	0.1495	0.0869	16	0.12	0%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (2%)	0114	2.670	0.0200	2.652	0.1495	0.0869	16	0.12	0%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (2%)	0324	2.720	0.1400	2.652	0.1495	0.0869	16	0.45	1%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (2%)	0360	2.760	0.0000	2.652	0.1495	0.0869	16	0.72	2%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (2%)	0472	2.815	0.0500	2.652	0.1495	0.0869	16	1.09	3%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (2%)	0483	2.855	0.3500	2.652	0.1495	0.0869	16	1.36	4%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (2%)	0035	2.900	0.0200	2.652	0.1495	0.0869	16	1.66	5%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (2%)	0230	1.765*	1.270	2.652	0.1495	0.0869	16	-5.93	17%	1
241.31	Acid Soluble Iron, ICP, test portion organic ... (2%)	0231	2.880	0.0400				1			0
241.32	Acid Soluble Iron, ICP, test portion 2006.03A... (2%)	0521	2.403	0.0000				2			0
241.32	Acid Soluble Iron, ICP, test portion 2006.03A... (2%)	0423	2.640	0.0400				2			0
241.33	Acid Soluble Iron, ICP, test portion 2006.03A... (2%)	0486	2.215*	0.0100	2.644	0.1494	0.0543	13	-2.87	8%	0
241.33	Acid Soluble Iron, ICP, test portion 2006.03A... (2%)	0136	2.485	0.0900	2.644	0.1494	0.0543	13	-1.07	3%	0
241.33	Acid Soluble Iron, ICP, test portion 2006.03A... (2%)	0055	2.510	0.0800	2.644	0.1494	0.0543	13	-0.90	3%	0
241.33	Acid Soluble Iron, ICP, test portion 2006.03A... (2%)	0515	2.526	0.0780	2.644	0.1494	0.0543	13	-0.79	2%	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
241.33	Acid Soluble Iron, ICP, test portion 2006.03A... (2%)	0494	2.638	0.1590	2.644	0.1494	0.0543	13	-0.05	0%	0
241.33	Acid Soluble Iron, ICP, test portion 2006.03A... (2%)	0177	2.640	0.0478	2.644	0.1494	0.0543	13	-0.03	0%	0
241.33	Acid Soluble Iron, ICP, test portion 2006.03A... (2%)	0117	2.649	0.0200	2.644	0.1494	0.0543	13	0.03	0%	0
241.33	Acid Soluble Iron, ICP, test portion 2006.03A... (2%)	0025	2.672	0.0170	2.644	0.1494	0.0543	13	0.18	1%	0
241.33	Acid Soluble Iron, ICP, test portion 2006.03A... (2%)	0034	2.705	0.1270	2.644	0.1494	0.0543	13	0.40	1%	0
241.33	Acid Soluble Iron, ICP, test portion 2006.03A... (2%)	0220	2.715	0.0300	2.644	0.1494	0.0543	13	0.47	1%	0
241.33	Acid Soluble Iron, ICP, test portion 2006.03A... (2%)	0037	2.717	0.0210	2.644	0.1494	0.0543	13	0.48	1%	0
241.33	Acid Soluble Iron, ICP, test portion 2006.03A... (2%)	0023	2.834	0.0200	2.644	0.1494	0.0543	13	1.27	4%	0
241.33	Acid Soluble Iron, ICP, test portion 2006.03A... (2%)	0527	2.909	0.0060	2.644	0.1494	0.0543	13	1.77	5%	0
241.99	Acid Soluble Iron, Other (2%)	0476	1.325*	0.0700	2.539	0.2530	0.0451	9	-4.43	24%	0
241.99	Acid Soluble Iron, Other (2%)	0042	2.220*	0.0400	2.539	0.2530	0.0451	9	-1.16	6%	0
241.99	Acid Soluble Iron, Other (2%)	0515	2.489	0.0587	2.539	0.2530	0.0451	9	-0.18	1%	0
241.99	Acid Soluble Iron, Other (2%)	0137	2.542	0.0620	2.539	0.2530	0.0451	9	0.01	0%	0
241.99	Acid Soluble Iron, Other (2%)	0368	2.545	0.0745	2.539	0.2530	0.0451	9	0.02	0%	0
241.99	Acid Soluble Iron, Other (2%)	0523	2.660	0.0800	2.539	0.2530	0.0451	9	0.44	2%	0
241.99	Acid Soluble Iron, Other (2%)	0524	2.677	0.0006	2.539	0.2530	0.0451	9	0.50	3%	0
241.99	Acid Soluble Iron, Other (2%)	0389	2.770	0.0200	2.539	0.2530	0.0451	9	0.84	5%	0
241.99	Acid Soluble Iron, Other (2%)	0200	2.790	0.0000	2.539	0.2530	0.0451	9	0.92	5%	0
241.99	Acid Soluble Iron, Other (2%)	0501	2.340	0.3600	2.539	0.2530	0.0451	9	-0.73	4%	1
251.30	Acid Soluble Lead , ICP (ppm)	0501	0.3100	0.0000	1.925	0.9356	0.1764	5	-1.51	42%	0
251.30	Acid Soluble Lead , ICP (ppm)	0476	2.050	0.0000	1.925	0.9356	0.1764	5	0.12	3%	0
251.30	Acid Soluble Lead , ICP (ppm)	0524	2.253	0.0819	1.925	0.9356	0.1764	5	0.31	9%	0
251.30	Acid Soluble Lead , ICP (ppm)	0523	2.285	0.0900	1.925	0.9356	0.1764	5	0.34	9%	0
251.30	Acid Soluble Lead , ICP (ppm)	0035	2.725	0.7100	1.925	0.9356	0.1764	5	0.75	21%	0
251.30	Acid Soluble Lead , ICP (ppm)	0368	0.0000	0.0000	1.925	0.9356	0.1764	5			4
251.33	Acid Soluble Lead , ICP, 2006.03 modified w/9... (ppm)	0527	2.104	0.0350				2			0
251.33	Acid Soluble Lead , ICP, 2006.03 modified w/9... (ppm)	0515	5.648	0.4185				2			0
251.34	Acid Soluble Lead , ICP, EPA 3050B/6010C (ppm)	0230	1.482	1.256				2			0
251.34	Acid Soluble Lead , ICP, EPA 3050B/6010C (ppm)	0515	2.217	1.168				2			0
251.99	Acid Soluble Lead , Other (ppm)	0042	0.9500	0.0200	7.983	6.273	0.2067	3	-1.12	44%	0
251.99	Acid Soluble Lead , Other (ppm)	0200	10.00	0.0000	7.983	6.273	0.2067	3	0.32	13%	0
251.99	Acid Soluble Lead , Other (ppm)	0535	13.00	0.6000	7.983	6.273	0.2067	3	0.80	31%	0
261.00	Acid Soluble Manganese , AA, Mn2+ only (%)	0043	0.0071	0.0010				1			0
261.12	Acid Soluble Manganese , AA, inorganic 965.09 (%)	0535	0.0057	0.0001				2			0
261.12	Acid Soluble Manganese , AA, inorganic 965.09 (%)	0105	0.0071	0.0013				2			0
261.15	Acid Soluble Manganese , AA, 965.09, test por... (%)	0105	0.0071	0.0000				1			0
261.30	Acid Soluble Manganese , ICP, test portion 97... (%)	0096	0.0074	0.0001	0.0081	0.0012	0.0004	4	-0.63	5%	0
261.30	Acid Soluble Manganese , ICP, test portion 97... (%)	0354	0.0075	0.0010	0.0081	0.0012	0.0004	4	-0.51	4%	0
261.30	Acid Soluble Manganese , ICP, test portion 97... (%)	0035	0.0077	0.0004	0.0081	0.0012	0.0004	4	-0.35	3%	0
261.30	Acid Soluble Manganese , ICP, test portion 97... (%)	0472	0.0100	0.0000	0.0081	0.0012	0.0004	4	1.49	11%	0
261.31	Acid Soluble Manganese , ICP, test portion 97... (%)	0482	0.0100	0.0000				1			0
261.32	Acid Soluble Manganese , ICP, test portion in... (%)	0483	0.0057	0.0003				1			0
261.34	Acid Soluble Manganese , ICP, test portion 20... (%)	0423	0.0070	0.0000				2			0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
261.34	Acid Soluble Manganese , ICP, test portion 20... (%)	0521	0.0091	0.0000				2			0
261.35	Acid Soluble Manganese , ICP, test portion 20... (%)	0117	0.0068	0.0002	0.0073	0.0006	0.0003	3	-0.80	3%	0
261.35	Acid Soluble Manganese , ICP, test portion 20... (%)	0494	0.0071	0.0006	0.0073	0.0006	0.0003	3	-0.32	1%	0
261.35	Acid Soluble Manganese , ICP, test portion 20... (%)	0527	0.0080	0.0000	0.0073	0.0006	0.0003	3	1.12	5%	0
261.99	Acid Soluble Manganese , Other (%)	0389	0.0067	0.0001	0.0081	0.0017	0.0000	3	-0.80	9%	0
261.99	Acid Soluble Manganese , Other (%)	0524	0.0075	0.0000	0.0081	0.0017	0.0000	3	-0.32	3%	0
261.99	Acid Soluble Manganese , Other (%)	0501	0.0100	0.0000	0.0081	0.0017	0.0000	3	1.12	12%	0
281.30	Acid Soluble Mercury , ICP (ppm)	0501	0.0200	0.0000	0.1050	0.0590	0.0125	4	-1.44	40%	0
281.30	Acid Soluble Mercury , ICP (ppm)	0450	0.1100	0.0200	0.1050	0.0590	0.0125	4	0.08	2%	0
281.30	Acid Soluble Mercury , ICP (ppm)	0527	0.1440	0.0080	0.1050	0.0590	0.0125	4	0.66	19%	0
281.30	Acid Soluble Mercury , ICP (ppm)	0476	0.1460	0.0220	0.1050	0.0590	0.0125	4	0.69	20%	0
281.99	Acid Soluble Mercury , Other (ppm)	0042	0.1500	0.0800				1			0
289.30	Acid Soluble Molybdenum , ICP (ppm)	0433	2.155	0.0050	3.796	1.167	0.0804	5	-1.23	22%	0
289.30	Acid Soluble Molybdenum , ICP (ppm)	0035	3.490	0.2800	3.796	1.167	0.0804	5	-0.23	4%	0
289.30	Acid Soluble Molybdenum , ICP (ppm)	0524	3.493	0.1068	3.796	1.167	0.0804	5	-0.23	4%	0
289.30	Acid Soluble Molybdenum , ICP (ppm)	0476	4.785	0.0100	3.796	1.167	0.0804	5	0.74	13%	0
289.30	Acid Soluble Molybdenum , ICP (ppm)	0521	5.057	0.0000	3.796	1.167	0.0804	5	0.94	17%	0
289.30	Acid Soluble Molybdenum , ICP (ppm)	0368	0.3000	0.6000	3.796	1.167	0.0804	5			4
289.33	Acid Soluble Molybdenum , ICP, 2006.03 modifi... (ppm)	0515	1.796	1.193	3.054	1.090	0.4253	3	-1.15	21%	0
289.33	Acid Soluble Molybdenum , ICP, 2006.03 modifi... (ppm)	0037	3.628	0.0770	3.054	1.090	0.4253	3	0.53	9%	0
289.33	Acid Soluble Molybdenum , ICP, 2006.03 modifi... (ppm)	0527	3.737	0.0060	3.054	1.090	0.4253	3	0.63	11%	0
289.34	Acid Soluble Molybdenum , ICP, EPA 3050B/6010... (ppm)	0230	2.810	2.060	3.644	0.7231	0.9277	3	-1.15	11%	0
289.34	Acid Soluble Molybdenum , ICP, EPA 3050B/6010... (ppm)	0501	4.030	0.6800	3.644	0.7231	0.9277	3	0.53	5%	0
289.34	Acid Soluble Molybdenum , ICP, EPA 3050B/6010... (ppm)	0515	4.093	0.0430	3.644	0.7231	0.9277	3	0.62	6%	0
289.99	Acid Soluble Molybdenum , Other (ppm)	0042	3.425	0.1100				1			0
291.00	Acid Soluble Nickel , AA, test portion as in ... (ppm)	0136	17.00	0.0000				1			0
291.30	Acid Soluble Nickel , ICP (ppm)	0368	9.200	3.800	13.58	2.155	0.9557	9	-1.88	16%	0
291.30	Acid Soluble Nickel , ICP (ppm)	0444	11.24	1.240	13.58	2.155	0.9557	9	-1.00	9%	0
291.30	Acid Soluble Nickel , ICP (ppm)	0523	12.84	0.1800	13.58	2.155	0.9557	9	-0.32	3%	0
291.30	Acid Soluble Nickel , ICP (ppm)	0096	13.30	0.2000	13.58	2.155	0.9557	9	-0.12	1%	0
291.30	Acid Soluble Nickel , ICP (ppm)	0482	14.00	0.2000	13.58	2.155	0.9557	9	0.18	2%	0
291.30	Acid Soluble Nickel , ICP (ppm)	0035	14.25	1.700	13.58	2.155	0.9557	9	0.29	2%	0
291.30	Acid Soluble Nickel , ICP (ppm)	0524	14.39	0.2617	13.58	2.155	0.9557	9	0.35	3%	0
291.30	Acid Soluble Nickel , ICP (ppm)	0476	15.71	1.020	13.58	2.155	0.9557	9	0.91	8%	0
291.30	Acid Soluble Nickel , ICP (ppm)	0521	16.13	0.0000	13.58	2.155	0.9557	9	1.09	9%	0
291.30	Acid Soluble Nickel , ICP (ppm)	0450	19.50	7.000	13.58	2.155	0.9557	9	2.54	22%	1
291.33	Acid Soluble Nickel , ICP, 2006.03 modified w... (ppm)	0117	12.95	0.4000	14.78	1.973	0.2526	4	-0.93	6%	0
291.33	Acid Soluble Nickel , ICP, 2006.03 modified w... (ppm)	0515	13.25	0.1225	14.78	1.973	0.2526	4	-0.77	5%	0
291.33	Acid Soluble Nickel , ICP, 2006.03 modified w... (ppm)	0527	16.03	0.1990	14.78	1.973	0.2526	4	0.63	4%	0
291.33	Acid Soluble Nickel , ICP, 2006.03 modified w... (ppm)	0037	16.89	0.2890	14.78	1.973	0.2526	4	1.07	7%	0
291.34	Acid Soluble Nickel , ICP, EPA 3050B/6010C (ppm)	0230	12.16	8.880	12.74	0.5763	4.356	3	-1.01	2%	0
291.34	Acid Soluble Nickel , ICP, EPA 3050B/6010C (ppm)	0501	12.75	0.1600	12.74	0.5763	4.356	3	0.02	0%	0
291.34	Acid Soluble Nickel , ICP, EPA 3050B/6010C (ppm)	0515	13.31	4.029	12.74	0.5763	4.356	3	0.99	2%	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
291.99	Acid Soluble Nickel , Other (ppm)	0042	11.82	0.5800				2			0
291.99	Acid Soluble Nickel , Other (ppm)	0535	19.50	1.000				2			0
301.30	Acid Soluble Selenium , ICP (ppm)	0476	0.9800	0.0400	3.362	3.805	2.483	3	-0.63	35%	0
301.30	Acid Soluble Selenium , ICP (ppm)	0501	1.355	0.1100	3.362	3.805	2.483	3	-0.53	30%	0
301.30	Acid Soluble Selenium , ICP (ppm)	0368	7.750	7.300	3.362	3.805	2.483	3	1.15	65%	0
301.33	Acid Soluble Selenium , ICP, 2006.03 modified... (ppm)	0527	0.9480	0.0220				1			0
301.99	Acid Soluble Selenium , Other (ppm)	0042	0.7600	0.0800				1			0
311.30	Sodium, Flame Photometric (%)	0043	0.1550	0.0100				1			0
311.32	Sodium, ICP, 2006.03 test portion (%)	0521	0.1241	0.0000				1			0
311.33	Sodium, ICP, 2006.03 modified w/9:3 HNO3:HCl ... (%)	0423	0.1045	0.0030	0.1170	0.0108	0.0053	3	-1.15	5%	0
311.33	Sodium, ICP, 2006.03 modified w/9:3 HNO3:HCl ... (%)	0527	0.1230	0.0060	0.1170	0.0108	0.0053	3	0.55	3%	0
311.33	Sodium, ICP, 2006.03 modified w/9:3 HNO3:HCl ... (%)	0035	0.1235	0.0070	0.1170	0.0108	0.0053	3	0.60	3%	0
311.99	Sodium, Other (%)	0482	0.1200	0.0000	0.1280	0.0105	0.0060	4	-0.77	3%	0
311.99	Sodium, Other (%)	0501	0.1200	0.0000	0.1280	0.0105	0.0060	4	-0.77	3%	0
311.99	Sodium, Other (%)	0096	0.1300	0.0000	0.1280	0.0105	0.0060	4	0.19	1%	0
311.99	Sodium, Other (%)	0354	0.1420	0.0240	0.1280	0.0105	0.0060	4	1.34	5%	0
321.00	Acid Soluble Zinc , AA, inorganic 965.09 (%)	0535	0.0103	0.0005	0.0243	0.0209	0.0026	6	-0.60	29%	0
321.00	Acid Soluble Zinc , AA, inorganic 965.09 (%)	0105	0.0119	0.0004	0.0243	0.0209	0.0026	6	-0.53	25%	0
321.00	Acid Soluble Zinc , AA, inorganic 965.09 (%)	0533	0.0141	0.0007	0.0243	0.0209	0.0026	6	-0.44	21%	0
321.00	Acid Soluble Zinc , AA, inorganic 965.09 (%)	0043	0.0159	0.0002	0.0243	0.0209	0.0026	6	-0.36	17%	0
321.00	Acid Soluble Zinc , AA, inorganic 965.09 (%)	0532	0.0380	0.0060	0.0243	0.0209	0.0026	6	0.59	28%	0
321.00	Acid Soluble Zinc , AA, inorganic 965.09 (%)	0540	0.1060	0.0080	0.0243	0.0209	0.0026	6	3.49	168%	0
321.01	Acid Soluble Zinc , AA, organic 965.09 (%)	0531	0.0000	0.0000				0			4
321.03	Acid Soluble Zinc , AA, 965.09, test portion ... (%)	0105	0.0120	0.0002				1			0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (%)	0444	0.0093	0.0002	0.0116	0.0025	0.0007	10	-0.85	10%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (%)	0234	0.0100	0.0000	0.0116	0.0025	0.0007	10	-0.59	7%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (%)	0472	0.0100	0.0000	0.0116	0.0025	0.0007	10	-0.59	7%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (%)	0482	0.0100	0.0000	0.0116	0.0025	0.0007	10	-0.59	7%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (%)	0483	0.0101	0.0026	0.0116	0.0025	0.0007	10	-0.55	6%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (%)	0035	0.0115	0.0010	0.0116	0.0025	0.0007	10	-0.02	0%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (%)	0433	0.0120	0.0000	0.0116	0.0025	0.0007	10	0.17	2%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (%)	0233	0.0122	0.0002	0.0116	0.0025	0.0007	10	0.24	3%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (%)	0354	0.0155	0.0030	0.0116	0.0025	0.0007	10	1.49	17%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (%)	0096	0.0162	0.0002	0.0116	0.0025	0.0007	10	1.75	20%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (%)	0230	0.0086	0.0063	0.0116	0.0025	0.0007	10	-1.14	13%	1
321.32	Acid Soluble Zinc , ICP, test portion 2006.03... (%)	0521	0.0151	0.0000				2			0
321.32	Acid Soluble Zinc , ICP, test portion 2006.03... (%)	0423	0.0375	0.0010				2			0
321.33	Acid Soluble Zinc , ICP, test portion 2006.03... (%)	0515	0.0113	0.0011	0.0118	0.0004	0.0008	5	-1.41	2%	0
321.33	Acid Soluble Zinc , ICP, test portion 2006.03... (%)	0117	0.0116	0.0003	0.0118	0.0004	0.0008	5	-0.58	1%	0
321.33	Acid Soluble Zinc , ICP, test portion 2006.03... (%)	0494	0.0119	0.0017	0.0118	0.0004	0.0008	5	0.25	0%	0
321.33	Acid Soluble Zinc , ICP, test portion 2006.03... (%)	0527	0.0120	0.0000	0.0118	0.0004	0.0008	5	0.66	1%	0
321.33	Acid Soluble Zinc , ICP, test portion 2006.03... (%)	0037	0.0122	0.0007	0.0118	0.0004	0.0008	5	1.08	2%	0
321.99	Acid Soluble Zinc , Other (%)	0476	0.0100	0.0000	0.0114	0.0012	0.0005	9	-1.07	6%	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
321.99	Acid Soluble Zinc , Other (%)	0501	0.0100	0.0000	0.0114	0.0012	0.0005	9	-1.07	6%	0
321.99	Acid Soluble Zinc , Other (%)	0515	0.0110	0.0009	0.0114	0.0012	0.0005	9	-0.33	2%	0
321.99	Acid Soluble Zinc , Other (%)	0368	0.0112	0.0007	0.0114	0.0012	0.0005	9	-0.17	1%	0
321.99	Acid Soluble Zinc , Other (%)	0389	0.0113	0.0005	0.0114	0.0012	0.0005	9	-0.09	0%	0
321.99	Acid Soluble Zinc , Other (%)	0042	0.0115	0.0010	0.0114	0.0012	0.0005	9	0.11	1%	0
321.99	Acid Soluble Zinc , Other (%)	0524	0.0118	0.0000	0.0114	0.0012	0.0005	9	0.34	2%	0
321.99	Acid Soluble Zinc , Other (%)	0523	0.0125	0.0010	0.0114	0.0012	0.0005	9	0.90	5%	0
321.99	Acid Soluble Zinc , Other (%)	0200	0.0198	0.0001	0.0114	0.0012	0.0005	9	6.61	37%	0
325.30	Water Soluble Zinc , ICP (%)	0406	2.480	0.0000				1			0

Interpreting Z Scores: Red indicates a normally distributed Z value >3 or <-3 (requires action), Orange = Z between 2 and 3 or -2 and -3 (warning) and Green = Z < 2 and >-2 (OK at 95%). Flags indicate data usage: 0 = Used, 1 = rejected for duplicates too far apart, 2 = rejected as extreme outlier and a 4 flag indicates rejected due to 0 value submitted. Robust statistics not used if < 6 labs used in calculations, in this case the Z Scores are included for information only (Grey). An offset lab value with an astrix indicates that the value is lower than the Analyte value less the IA. Method or Analyte codes in light green indicate a guaranteed analyte. Individual lab values may be below detection limits but are reported solely for the purpose of this Proficiency Testing program.